

## DAR-1

# Guidelines for the Evaluation and Control of Ambient Air Contaminants Under 6NYCRR Part 212

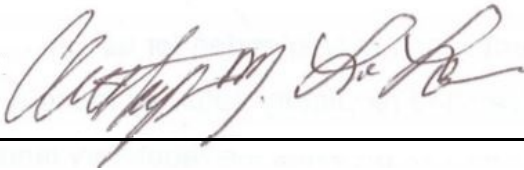
New York State NYSDEC of Environmental Conservation

## DEC Program Policy

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Title: Director, Division of Air Resources

Signature:



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- I. **SUMMARY:** This policy document, issued by the New York State Department of Environmental Conservation (NYSDEC), outlines the procedures for evaluating the emissions of criteria and non-criteria air contaminants from process operations in New York State. Incorporated within the policy document are three flow charts to aid the end user when identifying applicable process emission sources, establishing uniform Environmental Ratings (ER) and ascertaining the proper degree of control for applicable process emission sources.
- II. **POLICY:** This policy is written to provide guidance for the implementation of and compliance with 6 NYCRR Part 212 Process Operations (Part 212).
- III. **PURPOSE AND BACKGROUND:** This policy provides guidance for the control of criteria and toxic air contaminants emitted from process emission sources in New York State. Process emission sources refer to the equipment at

manufacturing facilities that result in the release of air contaminants during operation. Process emission sources do not include equipment that combust fuel for electricity or space heating for commercial, industrial plants or residential heating. The policy describes the Division of Air Resources' (DAR) procedures for implementing Part 212. This policy replaces the DAR-1 previously issued on August 10, 2016 by DAR. This document provides guidance to NYSDEC staff, those facility owners subject to Part 212, and the general public. More specifically, this guidance document discusses how the NYSDEC intends to implement Part 212. This guidance is not a substitute for those provisions nor is it a regulation itself.

The guidance contained in this document is primarily intended for use in conjunction with the NYSDEC's permitting and regulatory authority found in 6 NYCRR Parts 200, 201, 212 and 257. Part 212 provides the regulatory language for NYSDEC staff to enforce specific emission restrictions from process emission sources for criteria and non-criteria air contaminants. Part 212 is used in conjunction with other state and federal regulations to control criteria air contaminants and non-criteria air contaminants, also referred to as toxic air contaminants. This document also includes flow charts to assist the reader in interpreting the Part 212 regulation. However, the flow charts cannot address all situations encountered when determining the appropriate ER or degree of control required; therefore, the regulation and not the flowcharts is always the final interpretation of Part 212.

**IV. RESPONSIBILITY:** DAR is responsible for carrying out the permitting requirements of Part 212 and for maintaining the Annual and Short-term Guideline Concentration (AGC/SGC) tables. Facility owners and operators are responsible for providing the information necessary for NYSDEC staff to carry out a complete Part 212 review. A complete review includes but is not limited to: the final environmental rating assessment for a process emission source, the resulting off-site ambient air concentrations from the emission source, and any

proposed control requirements for air contaminants emitted from process operations at the facility.

## **V. PROCEDURE:**

### **A. PERMIT APPLICATION REQUIREMENTS SPECIFIC TO PART 212**

For emission sources identified as process emission sources as defined in 212-1.2(b)(19), the applicant must submit all the material required by 6 NYCRR Parts 201, 212, 621, and all other applicable regulations. Part 212 requires the applicant to precisely identify all air contaminants emitted from each applicable process emission source. The following information is required to be included with each registration or permit application:

1. For air contaminants on the High Toxicity Air Contaminants (HTAC) list identified in 212-2.2 Table 2, the applicant shall submit the hourly emission rate potential (ERP) (defined in 6 NYCRR Part 200.1(u)) of each air contaminant associated with each emission source and the facility wide yearly actual annual emissions;
2. For each non-HTAC air contaminant, for which the actual annual emission rate is greater than 100 pounds per year facility-wide, the applicant shall submit the contaminant's hourly ERP associated with each emission source. Actual annual emission rates less than 100 pounds per year after the use of a control device must meet the provisions of 212-1.5(g);
3. Each air contaminant must be identified by its chemical name and number, as defined in the American Chemical Society's Chemical Abstract Service (CAS) Registry;
4. Safety Data Sheets (SDS), previously known as Material Safety Data Sheets (MSDS), must be made available, upon request, to regional staff for chemicals

and chemical compounds emitted from process emission sources (both CAS numbers and chemical names are commonly found on the SDS). Submittal of SDS documentation may not be needed if the relevant air contaminants are found in the AGC/SGC Tables or if the application is a renewal;

5. A list and description of all process emission sources, including emission sources found under “Exceptions” in 212-1.4 but not including those listed as exempt or trivial in Subpart 201-3;

6. A description of all processes (defined in 212-1.2(b)(18)) and their associated emission sources and products. A process flow diagram is required detailing which process emissions from each process emission source exhaust from which emission point (EP);

7. A list of all EPs associated with an emission source/process subject to an applicable federal or state requirement. The EP data should include the following parameters: stack height (ft), stack height above building (ft), internal stack diameter (in), exit temperature (degrees Fahrenheit (F)), exit velocity (ft/sec), exit flow in actual cubic feet per minute (acfm), distance from the EP to the property line (ft) and New York Transverse Mercator (NYTM) or latitude and longitude coordinates found at <https://orthos.dhSES.ny.gov/>; and

8. All necessary analyses in support of the permit application, as applicable. These include an ER proposal and the degree of air cleaning required from 212-2.3 Table 3 and/or Table 4. In addition, the following analysis may be required: a Toxic Impact Assessment (TIA) incorporating an AERSCREEN modeling analysis or AERMOD modeling protocol; a Best Available Control Technology (BACT) or Toxics Best Available Control Technology (T-BACT) evaluation; and/or a Volatile Organic Compounds (VOC) or Nitrogen Oxides (NO<sub>x</sub>) Reasonably Available Control Technology (RACT) evaluation.

## **B. PART 212 DAR-1 INITIAL REVIEW – FLOWCHART #1**

Facility owners and operators who submit an application for a new, or a modified process emission source for their facility or owners or operators submitting a renewal application for their facility with process operations may be subject to Part 212. Flowchart #1 describes the first steps of a Part 212 review. Subpart 212-1, “General Provisions,” identifies the process emission sources that are either preempted by another regulation or to which the control requirements of Part 212 are not applicable. The first step in implementing Part 212 is to determine whether an operation that will be carried out at the facility constitutes a “process operation” as defined in Paragraph 212-1.2(b)(18). If so, the next step is to determine whether the process operation is one of the exemptions listed in 201-3 or the process operation meets one of the exceptions listed in Section 212-1.4. It is important to note that several of the listed exceptions have caveats that if the process operations emits one or more contaminants with an A-rating, the exception is not valid. A contaminant is assigned an A-rating when its discharge results, or may result, in serious adverse effects on individuals or the environment. The procedures to determine an ER will be covered under Flowchart #2.

The second step when evaluating Part 212 applicability is for owners or operators to determine if their process emission sources meet the requirements described in the next two sections. It is possible to demonstrate compliance with Part 212 by meeting certain applicable federal requirements as outlined below.

### **1. 212-1.5(e)(1) - Determining Applicable Emission Standards for Process Operations – New Source Performance Standard (NSPS) under 40 CFR Part 60**

Criteria air contaminants emitted from a process emission source regulated by a federal NSPS are considered to be in compliance with Part 212 for the respective air contaminant being regulated. For certain source categories regulated under 40 CFR Part 60, the control requirements are promulgated under an Emission Guideline for existing process emission sources and not a NSPS.

The intent of 212-1.5(e)(1) is to allow the NSPS or Emission Guideline to take precedence over Part 212 for the control of criteria air contaminants.

## 2. 212-1.5(e)(2) - Determining Applicable Emission Standards for Process Operations – National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Toxic Impact Assessment (TIA)

Hazardous air pollutants emitted from a process emission source regulated by a federal NESHAP are considered to be in compliance with Part 212 for the respective air contaminant controlled by the NESHAP except for those NESHAPs regulating air contaminants on the HTAC list (Part 212-2, Table 2). In this instance, where HTACs are regulated under the NESHAP, the applicant needs to perform a TIA for the HTAC and demonstrate that the emissions of the HTAC will not cause off-site concentrations that exceed its AGC/SGC and are below its Persistent and Bioaccumulative Trigger (when applicable), as defined under 212-1.2(b)(17). For clarification, the updated Part 212 (2019) will allow for applicants to demonstrate compliance with paragraph 212-1.5(e)(2) by showing that the actual annual emissions are less than the mass emission limits in 212-2 Table 2. Staff should evaluate the actual emission rate based on the highest year of the previous five years of operating data.

The TIA is an inhalation risk assessment of the HTAC emissions from the applicable NESHAP emission source(s) emitting the HTAC (NOTE: any non-applicable NESHAP emission sources emitting the same HTAC should be included in the TIA analysis). The TIA uses air dispersion modeling to demonstrate that the off-site fence line concentration(s) are below the AGC(s)/SGC(s). The emission rate input to the air dispersion model should incorporate the after control emission rate allowed in the NESHAP or the calculated emission rate based on required control device(s). Acceptable models for the TIA include the United States Environmental Protection Agency's (US EPA) AERSCREEN and AERMOD. Prior to submitting a TIA, the applicant shall

provide a modeling protocol and submit it to the staff assigned to the project for review and approval. Applicants using AERSCREEN to demonstrate compliance do not need to submit a protocol. However, if the applicant cannot initially demonstrate compliance with AERSCREEN and needs to run AERMOD, they must submit a protocol. The TIA protocol should follow the guidelines in the US EPA's Risk Assessment Library: Facility Assessment Volume II.<sup>1</sup> This approach uses simplified screening tools to begin the assessment and, if necessary, proceeds with more refined parameters. The Facility Assessment document should be used as a guide for calculating the off-site concentrations and subsequent risks from the emissions of an HTAC.

Health effects from the exposure to airborne toxins can be evaluated in two ways: long-term and short-term exposure. The NYSDEC regulates short-term or acute exposure on a one-hour time period. When conducting a TIA, the calculated maximum one-hour air concentration should be compared to the NYSDEC's Short-Term Guideline Concentrations (SGC). The NYSDEC describes long-term exposure to be the exposure which occurs over a life-time of seventy-years. When conducting a TIA, the calculated maximum annual HTAC concentration from all process emission sources at the affected facility should be compared to the NYSDEC's Annual Guideline Concentration (AGC).

If modeled concentrations exceed the SGC and/or AGC based on the NESHAP allowable emission rate, the analysis may be performed using the actual emission rate based on the highest year of the previous five years of operating data. This rate may then be included as a limit in the permit if modeled concentrations are below the AGC and/or SGC . If the modeled concentrations still cannot meet the AGC/SGC, the NESHAP affected source does not satisfy the requirements of Part 212-1.5(e)(2) for the respective air contaminant and the facility owner must propose a means for satisfying the requirements of Part 212.

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<sup>1</sup> US EPA, Office of Air Quality Planning and Standards, Risk Assessment Library , Volume II EPA #453-K-04-001B April 2004 <https://www.epa.gov/fera/air-toxics-risk-assessment-reference-library-volumes-1-3>

And finally, for those process emission sources not covered by another regulation above, a Part 212 review must be completed for each air contaminant including its emissions from all process emission sources at the facility. Facility owners with process operations having actual HTAC emissions less than those listed in 212-2.2 Table 2 are deemed in compliance with Part 212 for that contaminant(s). A Part 212 review requires that the air contaminant emitted from a process emission source be evaluated for its ER and its uncontrolled emission rate defined as ERP.

### **C. ASSIGN AN ENVIRONMENTAL RATING (ER) – FLOW CHART #2**

Table 1 of Section 212-1.3 outlines the criteria for assigning ERs. Air contaminants from process emission sources are rated (A, B, C or D) and the assigned rating, along with the ERP, defines the Degree of Air Cleaning Required. The permit writer must either assign an ER or verify an applicant-proposed ER for criteria and non-criteria air contaminants from process emission sources regulated under Part 212, except under the following circumstances:

HTACs meeting the mass emission limits of Table 2 of 212-2.2; and

Non-HTACs emitted at an actual annual rate of less than 100 pounds, including annual emission rates less than 100 pounds per year after the use of a controlled device and meeting the provisions of 212-1.5(g);

Air contaminants from process emission sources must be evaluated on an individual air contaminant basis. The toxicity of the air contaminant being emitted is the basis for the initial ER designation and a major factor affecting a process emission source's final ER. In addition to an air contaminant's toxicity, an ER determination must take into account modeled ambient air concentrations (annual and short-term) for existing as well as new sources of the air contaminant, the location of sensitive individuals, such as children and the elderly and background concentrations, if available. Background concentrations should be considered when the process emission source's off-site concentrations are approaching the National Ambient Air Quality Standards (NAAQS) or AGC. Background concentrations for criteria air contaminants are



available from the NYSDEC for various locations around the State.<sup>2</sup> Background concentrations for a subset of non-criteria air contaminants are available from the National Air Toxics Assessment (NATA)<sup>3</sup>. All these factors can influence the final ER. The four steps for determining an ER are outlined below.

The four steps necessary to assign an ER are listed below.

1. Determine the Initial ER of each Air Contaminant from the Facility's Process Emission Sources or Emission Points

The AGC/SGC Tables have a column designating the toxicity classification for a majority of the air contaminants listed. An air contaminant's toxicity can be classified as either high, moderate, or low. Those air contaminants without a toxicity classification should be assigned a moderate toxicity classification. Based upon the assigned classification, the following ratings should initially be assigned to each air contaminant released:

A Rating - HIGH toxicity contaminants should initially be assigned an ER of "A." All air contaminants having a HTAC designation in 212-2.2 Table 2 should initially receive an "A" rating.

B Rating - MODERATE toxicity air contaminants should initially be assigned an ER of "B."

C Rating - LOW toxicity air contaminants should initially be assigned an ER of "C."

D Rating - No air contaminant should be initially assigned an ER of "D" unless it

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<sup>2</sup> NYSDEC <http://www.dec.ny.gov/chemical/8406.html>

<sup>3</sup> USEPA – 2015 <http://www.epa.gov/national-air-toxics-assessment>

is a simple asphyxiant.<sup>4</sup>

To establish an initial rating for an emission source emitting solid particulate matter, the permit writer must inquire as to the chemical makeup of the solid particulate. Solid particulate emitted from a process emission source, which is composed of higher toxicity heavy metals, for example, would require an initial ER of “A” whereas solid particulate made up of clean wood could have an initial rating of “B”.

The initial ER discussed above represents a starting point. Based upon the air quality dispersion modeling results, the initial ER may be re-assigned to a higher or lower rating. ERs should be reviewed for each contaminant when a registration, Air State Facility permit or Title V permit comes up for renewal. At that time, the permit or registration should be re-evaluated on a contaminant-specific basis to determine the appropriateness of the assigned ER(s).

The ER assigned to an air contaminant from a process emission source should also be re-evaluated whenever an AGC/SGC is changed or a contaminant is reclassified and assigned a higher or lower toxicity classification. The potential re-rating of an air contaminant will regularly occur during a renewal or modification or, if warranted, during a NYSDEC initiated modification under Part 621.13. When new toxicological evidence warrants a new ER, any associated limitations in the permit should be adjusted accordingly. If the revised rating requires additional control, a timetable for compliance should be negotiated between the facility owner and the permit writer. Re-evaluation of the AGC/SGCs is conducted on a three year cycle and regional staff and the public will be notified of the changes when this document is revised and published in the Environmental Notice Bulletin.

## 2. Assess the Air Quality Impacts

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<sup>4</sup> National Library of Medicine, National Institute of Health, Hazmap Simple Asphyxiant <https://pubchem.ncbi.nlm.nih.gov/>

Using US EPA approved air dispersion models, such as AERSCREEN or AERMOD, and following the procedures in DAR-10 allows the user to determine the predicted maximum annual and short-term off-site air concentration for each air contaminant. Annual modeled concentrations should be based on the ERP multiplied by 8,760 hours per year unless operating limits have been established and placed in the permit, in which case the permitted hours may be used. For modeled short-term impacts, the emission rate potential must be used to accurately characterize the potential maximum off-site concentration at the fence line of the property.

The predicted maximum off-site concentration is compared to the AGC and/or SGC, however when comparing offsite concentrations for criteria pollutants, the impacts are compared to the calculated design value for the appropriate federal or state ambient air quality standard. All process emission sources of an air contaminant at the facility under review, existing and new, must be considered when determining the maximum off-site concentration. Additionally, background concentrations (if available) should be considered when establishing a final ER.

Air contaminants that currently do not have an AGC assigned to them should be evaluated based upon a de minimus concentration of  $0.1 \mu\text{g}/\text{m}^3$  predicted at the fence line. The  $0.1 \mu\text{g}/\text{m}^3$  concentration is to be used as a first-time conservative approach to evaluate the dispersion of the air contaminant. If this occurs, the permit writer should forward the air contaminant's CAS registry number to the Air Toxics Section (ATS), within DAR, for the development of an AGC.

The detection of an odor may also be used to evaluate acceptable short-term impacts. However, an individual's detection of an odor varies greatly within a population and, as a general rule, an ER should not be assigned solely on odors. The ATS should be consulted for assistance when regional staff have

reason to believe that predicted short-term concentrations indicate that odors may be a concern. A reference document typically used by the NYSDEC for the various odor thresholds and detection limits recorded can be found at this reference below.<sup>5</sup>

### 3. Location of Sensitive Receptors

The location of nearby residents should be identified and included in the air dispersion modeling analysis when establishing a receptor grid. Sensitive locations, also referred to as sensitive receptors, such as schools and nursing homes where children and the elderly are located, should also be identified. Geographical Information Systems (GIS) is one tool available to locate the nearest sensitive receptors. Simple tools, such as Google or Bing Maps, are also effective to locate schools and near-by residential areas. Modeled impacts at these sensitive receptors can aid in determining the appropriateness of the initial ER. When the maximum modeled concentration is predicted at a sensitive receptor, the initial rating should be adjusted upwards. If a sensitive receptor is within the modeling domain, the potential for short-term and annual exposures to these individuals should be considered. The modeling domain of the air dispersion model can be established from the fence line of the facility out to 50 km. In dense urban areas, this can be more difficult and applicants can contact regional staff and ATS for further guidance.

### 4. Assign the Final ER for the Air Contaminant

All the factors listed above should be used to determine the appropriate final ER. Revising the initial ER is determined based on scientific and engineering judgement and the rating may be adjusted to be more or less stringent. Revising the ER may be necessary after the initial ER is assigned if the results of the dispersion modeling exceed the AGC and/or SGC values. The

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<sup>5</sup> American Industrial Hygiene Association, Odor Thresholds for Chemical with Established Occupational Health Standards, 1989

regional engineer should evaluate the process emission source's model predicted off-site air concentration for the process emission sources under review. Other emission sources at the same facility emitting the same air contaminant should be considered in the derivation of the final ER. Predicted maximum ambient air concentrations that exceed the AGC/SGC should have the ER adjusted upwards (i.e. raising an ER from a B to an A) for the air contaminant from the process emission source. If it is found during the review of one process emission source that another process emission source accounts for the majority of the off-site concentration, it may be necessary to adjust the ER of the other process emission source at the same time. As an alternative to raising the ER, the permit writer can establish operating conditions or controls which limit the emission rate to demonstrate compliance with the AGC/SGC. The permit writer needs to assign an ER for each speciated air contaminant within the family group. With the exception of particulates, family groups (e.g. total VOC) should not be assigned an ER.

#### **D. COMPLIANCE OPTIONS – FLOWCHART #3**

The facility owner can demonstrate compliance for air contaminants on the HTAC list (section 212-2.2 Table 2) by accepting state-enforceable permit conditions that limit the facility's annual actual emissions to below the corresponding mass emission limit for those air contaminants. Permit limits should be written into the permit at the maximum allowable emission limit and the permit writer should assure that actual annual emissions remain below the HTAC limits. If this compliance option is chosen, no further review is required for emissions of those HTAC contaminants that have been limited.

The review continues for each air contaminant where: the actual annual emission rate of the HTAC from all process emission sources at the facility exceeds the mass emission threshold; the non-criteria air contaminant is not an HTAC; or the air contaminant is a criteria air contaminant.

Compliance with Tables 3 through 5 of Subpart 212-2.3 and 212-2.5 is determined

by the following:

1. Facility owners whose process emission source emits solid Particulate Matter (PM) and was assigned an ER of “B” or “C” and the process operation is listed in 212-2.5 Table 5 must meet the permissible emission limit based on process weight found in 212-2.5 Table 6.
2. Facility owners whose process emission source emits solid PM and was assigned an ER of “B” or “C” and is not listed in Table 5 must meet the emission limit, expressed as grains per dry standard cubic foot, in 212-2.4.
3. When a facility’s total VOC or NO<sub>x</sub> emissions are greater than the major facility threshold levels found in Part 200-2.1(21), the process emission source(s) should be evaluated under Part 212-3, “Reasonably Available Control Technology for Major Facilities.” Part 212-1.5(f) states that the individual air contaminants of the total VOC should undergo an ER evaluation and, if any air contaminant within the total VOC receives an “A” rating, that process emission source must meet the provisions of 212-2.3(b) Table 4.
4. When a facility is classified as a hot mix asphalt production plant, the emission of NO<sub>x</sub>, particulates and non-criteria air contaminants should be evaluated under Part 212-4 and Part 212-2 respectively.
5. All criteria air contaminants must meet the requirements of Table 3.
6. Non-criteria air contaminants must meet the requirements of Table 4. These include among others: individual speciated VOCs, particulate with an environmental rating of “A” and those air contaminants classified as inorganics (i.e. chlorine, H<sub>2</sub>SO<sub>4</sub>, cyanide salts).
7. Facility owners whose process emission sources cannot meet the

requirements found in 212-2.3 Tables 3 and/or Table 4 must submit a BACT evaluation for criteria air contaminants and a T-BACT evaluation for non-criteria air contaminants.

## **E. IMPLEMENTATION OF TABLES 3 AND 4 OF PART 212-2.3**

Part 212-2.3 contains two tables, Table 3 and Table 4, for criteria and non-criteria air contaminants, respectively. Each table dictates the control required for a process emission source or emission point based on the assigned ER of the air contaminant(s).

### 1. Table 3 - Criteria Air Contaminants

#### a) Family Groups

1. VOCs - Although the family VOCs contributes to the formation of the criteria air contaminant ozone, VOC itself is not a criteria air contaminant and VOCs should not be addressed using Table 3. For facilities classified as major for VOCs and not subject to source specific regulations such as Parts 228, 229, and 234, the total VOCs are subject to 212-3, "VOC RACT for Major Facilities." Part 212-1.5(g) states that each individual air contaminants of the total VOC should undergo an ER evaluation, and if any air contaminant from an applicable emission source receives an "A" rating, that process emission source must meet the provisions of 212-2.3(b) Table 4.

2. Particulate - Air contaminants that are in the solid PM family group and are assigned an ER of "A" or "D" are subject to the control requirements of Table 3 as a family and Table 4 as speciated air contaminants. Emissions of toxic heavy metals (e.g. arsenic, beryllium, cadmium, lead, nickel, mercury) are within the solid PM family and are applicable to Table 3 but, as individual chemicals, they are considered highly toxic and the air contaminant(s) from the applicable process operation(s) should be "A" rated and regulated under a more stringent requirement in Table 4. Solid PM can be controlled as a family using the grain loading standards if it was assigned an ER of "B" or "C", but should first be evaluated for the individual

components that make up the solid PM.

b) Process emission sources applicable to Table 3 must always demonstrate compliance with the NAAQS, reported as the design value of the standard, even in the event that the specified “Degree of Air Cleaning Required” has been applied.

## 2. Table 4 - Non-criteria Air Contaminants

a) The “Degree of Air Cleaning Required” by Table 4 is established by the ER and the ERP. In the case of an air contaminant from a process emission source with an ER of “A” and an ERP of greater than or equal to 0.1 pounds per hour, Table 4 requires 90 to 99.5% control but is mute on acceptable off-site concentrations after control. The AGCs and SGCs represent acceptable health risk concentrations. In the case where the “Degree of Air Cleaning Required” is demonstrated but the off-site concentrations exceed the AGC, the off-site concentration must be within the allowable acceptable risk management range, as defined below in section F.1, “Procedure to Determine T-BACT Acceptability.” In this scenario, the process emission source should be approved for a permit if the degree of control is met and the off-site concentrations are within the acceptable risk management range.

b) If the owner of a new or modified process emission source and/or emission point cannot demonstrate the “Degree of Air Cleaning Required” in Table 4 of Part 212-2.3(b) based on the ERP, the permit application for the process emission source/emission point must be revised. In this case, the ERP cannot be lowered but emission limitations may be placed on the potential to emit in the permit reducing the annual emission rate. For air contaminants that have acute health effects, (i.e. those with SGCs), the degree of air cleaning must be achieved. For air contaminants without SGCs, the annual emission rate becomes the primary factor. In the case



of the applicant cannot demonstrate the degree of control, the facility owner must present a T-BACT demonstration showing the elected control efficiency represents T-BACT and the off-site concentration is within the acceptable risk management range, as discussed below in section F.1, "Procedure to Determine T-BACT Acceptability."

c) The facility owner may choose to provide additional information to the NYSDEC to justify the acceptability of the permit application by submitting toxicological information that would necessitate a revision to the AGC, SGC, or an assigned Toxicity Classification of the air contaminant. If the facility owner desires to attempt this demonstration, the permit writer should contact the ATS for assistance.

#### **F. SECTION 212-1.5(d) DETERMINING APPLICABLE EMISSION STANDARDS FOR PROCESS OPERATIONS – T-BACT**

Facility owners can demonstrate compliance using the BACT or T-BACT option under Subdivision 212-1.5(d). This subdivision should be cited on the permit when a facility owner uses BACT or T-BACT to demonstrate compliance. The procedures for regulating criteria pollutants through BACT are described in other federal and state guidance documents and will not be addressed in DAR-1.

There are several scenarios when a T-BACT demonstration is required under Part 212. The first instance is when a facility owner submits a T-BACT demonstration pursuant to 212-1.5(d) on their own accord. The T-BACT demonstration can be submitted for any process emission source/emission point with the approval of the NYSDEC. A detailed case must be made explaining why compliance with the control requirements of Table 4 is unachievable and a T-BACT analysis must be submitted following the procedures found below.

A second scenario is when the source owner or operator cannot meet the prescribed degree of air cleaning (control) required in Table 4 of 212-2.3(b). When this

occurs, it is important for the regional engineer to determine if the model predicted off-site concentrations are above or below the AGC/SGC. If the maximum off-site concentration exceeds the AGC and/or SGC, the source owner or operator must submit a T-BACT analysis and demonstrate that the maximum off-site air concentration remains within the acceptable risk management range established below under section F.1 Procedure to Determine T-BACT Acceptability. When the source owner is unable to meet the prescribed control required in Table 4 of 212-2.3(b) but the maximum off-site concentrations are less than the AGC/SGC, a T-BACT analysis should be submitted according to the requirements found below.

Another scenario is when the facility owner could meet the degree of air cleaning required but the maximum off-site air concentration after control is greater than the acceptable risk management range described below in section F.1 Procedure to Determine T-BACT Acceptability. This operating scenario is unacceptable and the facility owner must take measures to reduce off-site concentrations to acceptable levels.

The procedures below outline the necessary steps to demonstrate an acceptable T-BACT submittal. A successful demonstration of T-BACT requires two main constituents: demonstration that the process emission source is being controlled similar to the best controlled emission source in its source category and the subsequent emission rate results in acceptable off-site concentrations. The facility owner must identify the potential risk of the air contaminant after the control technology has been employed. DAR describes a negligible health risk for carcinogenic chemicals as an excess cancer risk of less than one-in-a-million and for non-cancer health endpoints as a hazard index, as defined below, of less than 1.0. T-BACT demonstrations must show that the off-site air concentrations will result in ambient impacts that are within the acceptable risk management range defined below.

#### 1. Procedures to Determine T-BACT Acceptability:

The application of T-BACT for an air contaminant at a process emission source is defined by the five parameters outlined in 212-1.2(b)(20):

- (i) process, fuels and raw material available and to be used;
- (ii) engineering aspects of the application of various types of control technology which have been adequately demonstrated;
- (iii) process and fuel changes;
- (iv) respective costs of the application of all such control technologies, process changes, alternative fuels, etc.; and the
- (v) toxicity of the air contaminant.

First and foremost, in any process operation where the emissions from an uncontrolled or controlled process emission source fails to meet an AGC, the facility owner has the option of removing that air contaminant from the process operation, in accordance with parameters (i) and (iii) of the T-BACT definition.

The necessary steps to submit a complete T-BACT determination are as follows:

- a) Best Controlled Similar Process Emission Source: An approvable T-BACT demonstration requires the facility owner to identify similar process emission sources in the source category. The appropriate source category can be identified based on the NESHAP Section 112(c) source category listings; the North American Industry Classification System (NAICS) standard used by federal statistical agencies in classifying business establishments; the Standard Industrial Classification Codes (SIC Codes), which identify the primary line of business of a company; and the Source Classification Code (SCC), a methodology used by the US EPA when categorizing sources of air pollution.

The identification of the best controlled similar process emission source should be that which has been achieved in practice.<sup>6</sup> The facility owner is

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<sup>6</sup> South Coast Air Quality District, <http://www.aqmd.gov/home/permits/bact/guidelines>  
***“Achieved in Practice Criteria***

responsible for identifying similar process emission sources and matching the proposed control technology. The best controlled similar process emission source should also have resulting off-site concentrations of air contaminants that meet the acceptable risk management range. If a best controlled similar source cannot be identified, a top down analysis utilizing varying control options should be conducted. The applicant must consider all available alternatives and demonstrate why the most stringent should not be adopted. These control options must be associated with emissions that result in acceptable off-site ambient air concentrations evaluated as described below.

Costs Associated with T-BACT: Unlike BACT for criteria air contaminants, T-BACT for non-criteria air contaminants is not solely evaluated based on cost of control per ton of air contaminant removed. The T-BACT definition shows that costs are but one factor to rely upon when demonstrating T-BACT as presented in item (iv) of the T-BACT definition: “respective costs of the application of all such control technologies, process changes, alternative fuels, etc.”.

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A control technology or emission limit needs to meet the following criteria:

**Commercial Availability:** At least one vendor must offer this equipment for regular or full-scale operation in the United States. A performance warranty or guaranty must be available with the purchase of the control technology, as well as parts and service.

**Reliability:** The control technology must have been installed and operated reliably for at least twelve months on a comparable commercial operation. If the operator did not require the basic equipment to operate continuously, such as only eight hours per day and 5 days per week, then the control technology must have operated whenever the basic equipment was in operation during the twelve months.

**Effectiveness:** The control technology must be verified to perform effectively over the range of operation expected for that type of equipment. If the control technology will be allowed to operate at lesser effectiveness during certain modes of operation, then those modes must be identified. The verification shall be based on a performance test or tests, when possible, or other performance data.

**Cost Effectiveness:** The control technology or emission rate must be cost effective for a substantial number of sources within the class or category. Technical judgement should be applied if one outlier permit in a source category is found to be skewing the final cost estimate of a class or category of sources.”

b) Identifying the Inhalation Health Risk (Risk) from Air Contaminants:

This section describes the procedures to identify the numerical risk from the air contaminants under review. The calculated risk will be used to determine if the measured or modeled risk meets the Acceptable Residual Risk Management Range described in section (c) below.

Process emission sources, identified in the T-BACT determination, could potentially have releases of air contaminants which will result in unacceptable risks to the neighboring community or environment even after control has been applied. Risks that are calculated after air pollution control is applied are known as residual risks. A complete T-BACT demonstration must present the quantitative residual risk that remains after the best controlled similar source technology has been identified and evaluated. The maximum off-site concentration from the T-BACT affected emission source should not exceed the SGC. Process operations with potential emissions resulting in concentrations above the SGC should take operating limits to reduce short-term impacts. Re-evaluation the off-site concentrations should identify concentrations in residential locations. The goal for the acceptable residual risk demonstration is to have the ambient air concentrations for all the air contaminants emitted from the process emission source be less than their respective AGC/SGCs. The NYSDEC recognizes that the residual risk can exceed the AGC even after the most stringent control identified for a process emission source has been applied. In this case, the NYSDEC has established an acceptable residual risk management range which cannot be exceeded. The residual risk management range is supported by the US EPA<sup>7</sup> and is elucidated in the Residual Risk Report to Congress.<sup>8</sup> The Acceptable Residual Risk Management Range is explained in section (c) below.

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<sup>7</sup> USEPA <http://www3.epa.gov/airtoxics/rrisk/rtrpg.html>

<sup>8</sup> USEPA, RESIDUAL RISK Report to Congress, Office of Air Quality Planning and Standards, March 1999

Unless the off-site concentrations are presented using a screen model, such as AERSCREEN, the T-BACT demonstration must include an air dispersion modeling protocol. The modeling analysis needs to locate the maximum off-site concentration of the non-criteria air contaminant emitted from the process emission source employing the T-BACT control. The resulting maximum off-site concentration and calculated residual risk should be correlated with the available control technology options.

Residual risk can be expressed as the excess cancer risk, defined as a one-in-a-million chance, for people exposed to a carcinogen or as the Hazard Index (HI) for people exposed to non-carcinogens. In cases where the emissions from an emission source or emission point are undergoing a T-BACT analysis and are comprised of multiple non-criteria air contaminants, the risk must be based on the sum of each non-criteria air contaminant. This is accomplished by the following method:

- i) In a screening-level assessment of carcinogens, the cancer risk predicted for each individual air contaminant may be added to estimate cumulative risk. This approach is based on an assumption that the risk associated with individual contaminants in the mixture are additive. The risk is expressed as the cumulative risk of all carcinogenic air contaminants, using the equation below:

$$Risk_T = Risk_1 + Risk_2 + \dots Risk_i$$

Where:

Risk<sub>T</sub> = Cumulative inhalation cancer risk (expressed as the risk per one-in-a-million people); and

Risk<sub>i</sub> = Inhalation risk estimate for the i<sup>th</sup> air contaminant, as calculated by dividing the annual maximum predicted air concentration by the AGC. The AGC is based on the risk of one-in-a-million people.

ii) The non-cancer risk, from an exposure lasting months, years, or a lifetime, is established on a emission source or emission point basis. The risk is characterized as the sum of hazard quotients (HQ) of all non-carcinogenic air contaminants, where:

$$HQ = AC \div AGC$$

HQ = The hazard quotient (unitless) for an air contaminant, as calculated by dividing the annual maximum predicted air concentration by the AGC;

AC = Estimate of the annual ambient air concentration for an air contaminant; and

AGC = Annual guideline concentration for the same air contaminant.

Non-cancer health effects data are generally available only for individual compounds within a mixture and not the mixture itself. To account for the potential for the combined health effects, the individual HQs should be summed together to calculate a multi-contaminant Hazard Index (HI):

$$HI = HQ_1 + HQ_2 + \dots + HQ_i$$

Where:

HI = Hazard index; and

HQ<sub>i</sub> = Hazard quotient for the <sup>i</sup>th non-criteria air contaminant.

c) Acceptable Residual Risk Management Range: The acceptable residual risk management range must be demonstrated by an approved air dispersion modeling analysis for the control technology approved as T-BACT. The residual risk is calculated on a emission source/emission point basis for the process operation under consideration for T-BACT.

The acceptable residual risk management range for process emission source's and/or emission point's must be less than 10-in-a-million cancer risk for those non-criteria air contaminants identified as carcinogens or less than a HI of 2 for non-carcinogen non-criteria air contaminants. In the case where an air contaminant has both carcinogenic and non-carcinogenic health effects, the air contaminant will be evaluated for the potential carcinogenic risk only, as the published AGC is typically based on cancer risk.

#### **G. RELEVANT REFERENCES:**

The following documents provide additional information that supports or otherwise clarifies the contents of this policy:

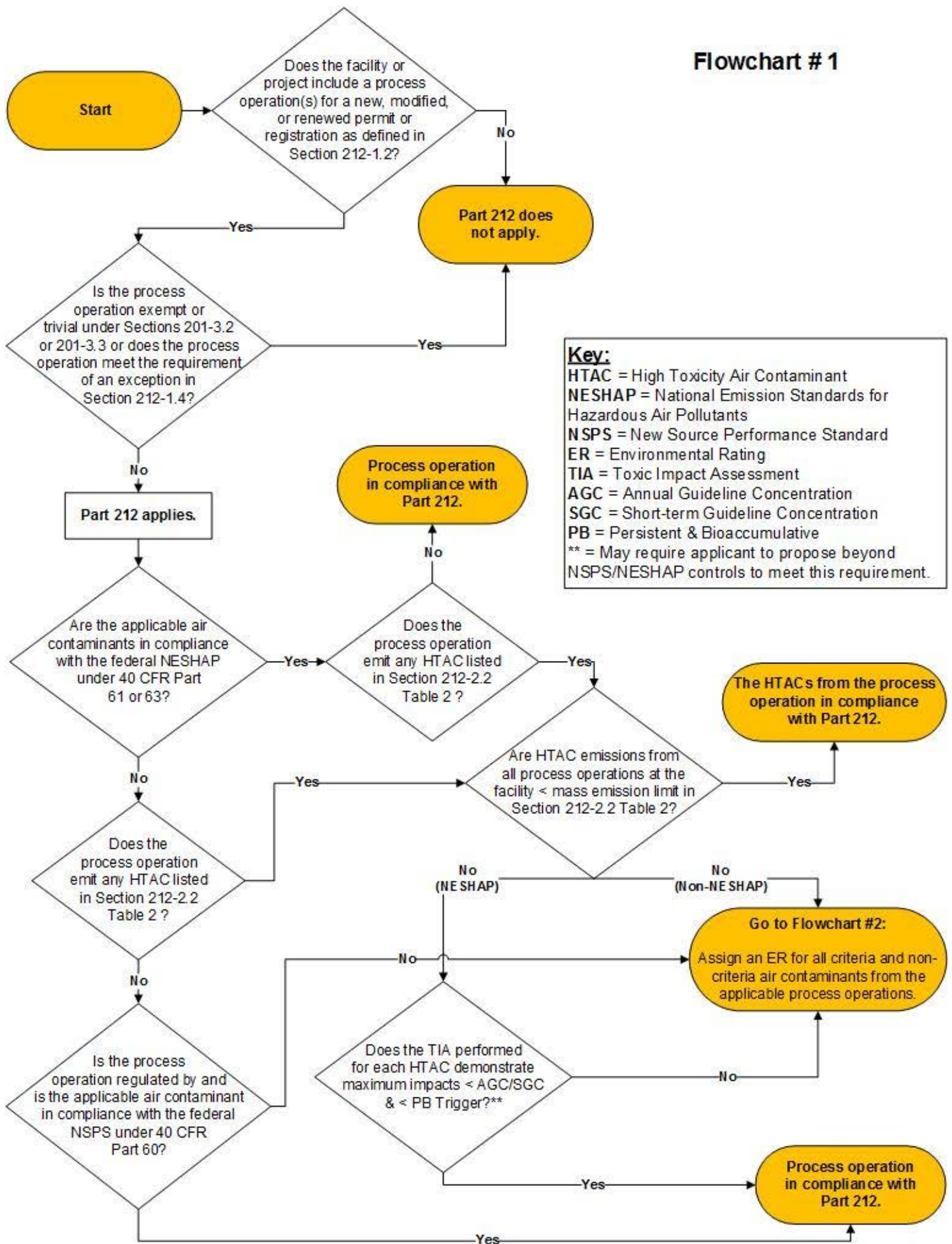
- American Conference of Governmental Industrial Hygienists (ACGIH) 2018. *Documentation of Threshold Limit Values and Biological Exposure Indices, 7<sup>th</sup> Edition – 2015 Supplement*. Cincinnati, Ohio.
- New York State NYSDEC of Environmental Conservation (NYSDEC). 2006. *DAR-10/ NYSDEC Guidelines on Dispersion Modeling Procedures for Air Quality Impact Analysis*. NYSDEC Program Policy. May 9, 2006.
- South Coast Air Quality Management District (SCAQMD). 2006. *Best Available Control Technology Guidelines*. July 2006.
- U.S. Environmental Protection Agency (US EPA). 2002. *Guidelines for MACT Determinations Under Section 112(j) Requirements*. EPA 453/R-02-001. Research Triangle Park, NC: Office of Air Quality Planning and Standards.
- U.S. Environmental Protection Agency (US EPA). 2002. *A Review of the Reference Dose and Reference Concentration Processes. Final Report*. EPA/630/P-02/002F. Washington D.C. Risk Assessment Forum.
- U.S. Environmental Protection Agency (US EPA). 2004. *Air Toxics Risk Assessment Reference Library. Volume 1: Technical Resource Manual*. EPA-453-K-04-001A. Research Triangle Park, NC: Office of Air Quality Planning and Standards.



- U.S. Environmental Protection Agency (US EPA). 2004. *Air Toxics Risk Assessment Reference Library. Volume 2: Facility-Specific Assessment*. EPA-453-K-04-001B. Research Triangle Park, NC: Office of Air Quality Planning and Standards.
- U.S. Environmental Protection Agency (US EPA). 2005(a). *Guidelines for Carcinogen Risk Assessment*. EPA/630/P-03/001F. Washington D.C. Risk Assessment Forum.
- U.S. Environmental Protection Agency (US EPA). 2005(b). *Supplemental Guidance for Assessing Susceptibility From Early Life Exposure to Carcinogens*. EPA/630/R-03/003F. Washington D.C. Risk Assessment Forum.
- U.S. Environmental Protection Agency (US EPA). 2012. *Benchmark Dose Technical Guidance*. EPA/100/R-12/001. Washington D.C. Risk Assessment Forum.
- U.S. Environmental Protection Agency (US EPA). 2015. *AERMOD Implementation Guide*. AERMOD Implementation Workgroup. Research Triangle Park, NC: Office of Air Quality Planning and Standards.

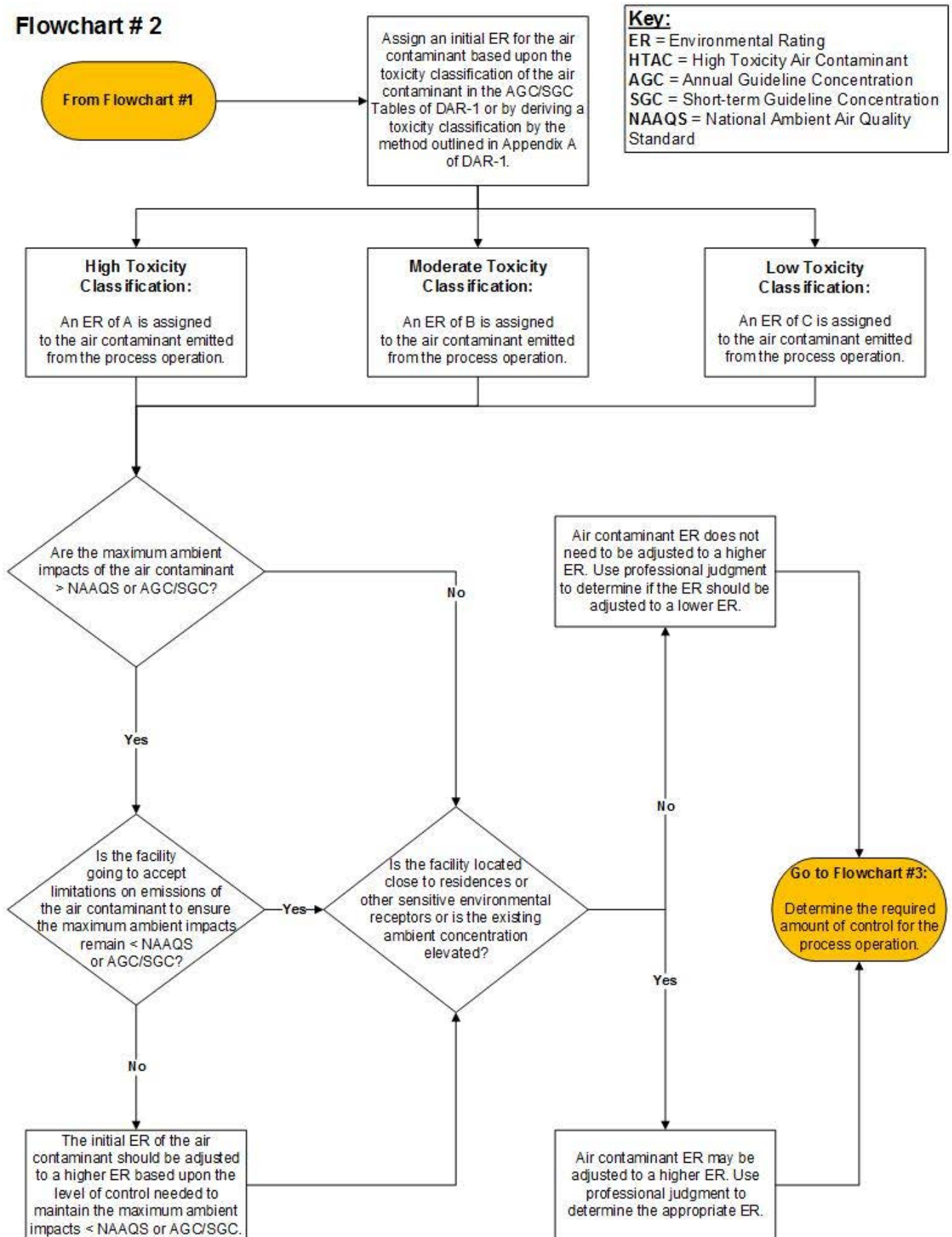
There may be other policies in state laws and regulations, handbooks, manuals and procedures too detailed and/or lengthy for inclusion in this policy document.

# Flowchart # 1

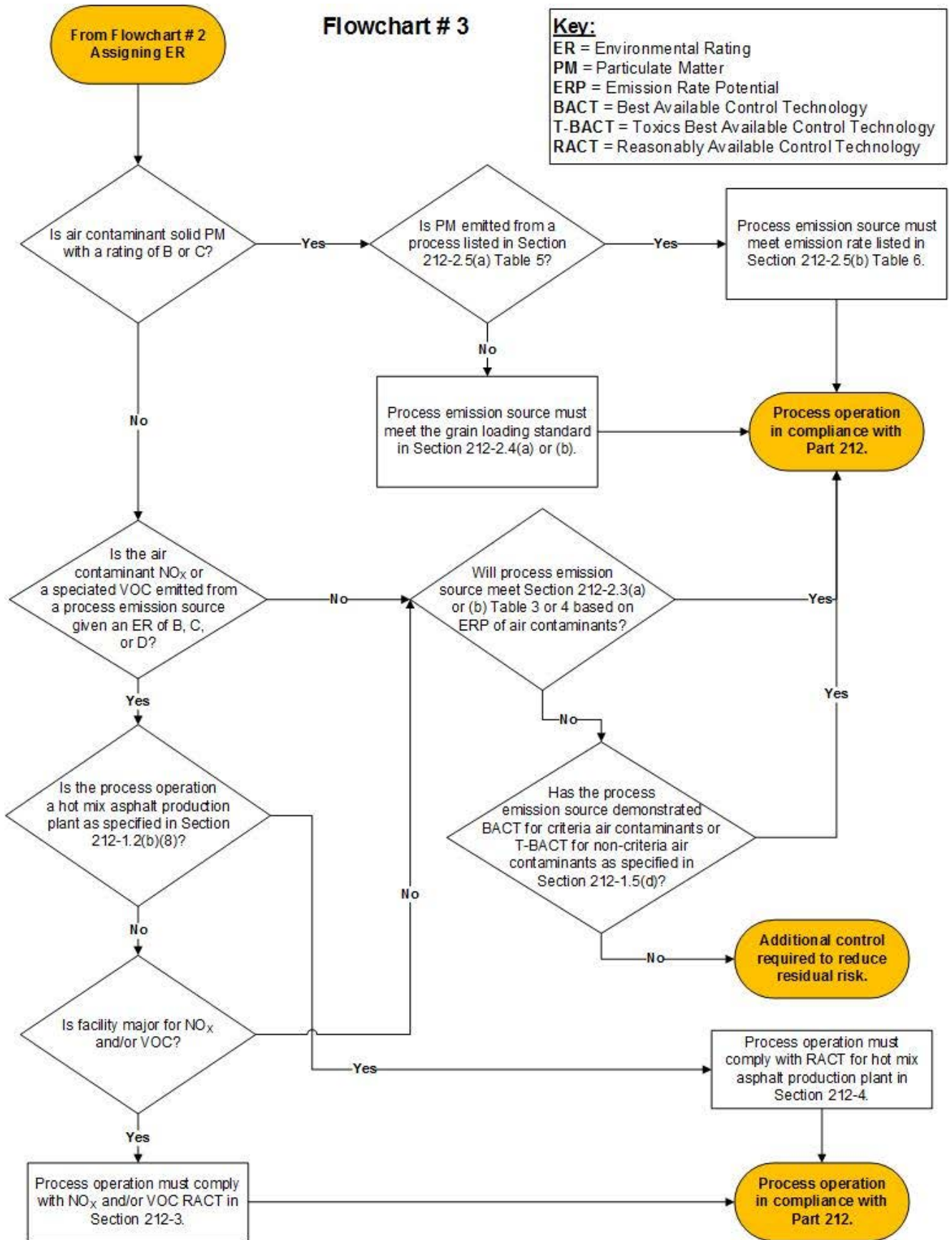


**Key:**  
 HTAC = High Toxicity Air Contaminant  
 NESHAP = National Emission Standards for Hazardous Air Pollutants  
 NSPS = New Source Performance Standard  
 ER = Environmental Rating  
 TIA = Toxic Impact Assessment  
 AGC = Annual Guideline Concentration  
 SGC = Short-term Guideline Concentration  
 PB = Persistent & Bioaccumulative  
 \*\* = May require applicant to propose beyond NSPS/NESHAP controls to meet this requirement.

## Flowchart # 2







**APPENDIX A**  
**TOXICITY CLASSIFICATION AND GUIDELINE DEVELOPMENT METHODOLOGY**  
**FOR ANNUAL AND SHORT-TERM GUIDELINE CONCENTRATIONS (AGCs/SGCs)**

**I. INTRODUCTION**

APPENDIX A describes the NYSDEC's methodologies for establishing AGCs and SGCs. These guideline air concentrations are used within a regulatory context to protect the general public from adverse health effects that may be induced by exposure to ambient air contaminants.

**II. TOXICITY CLASSIFICATION OF AIR CONTAMINANTS**

To categorize the toxicity of air contaminants, the NYSDEC issued regulatory language defining three distinctive categories as follows:

**A. AIR CONTAMINANTS WITH HIGH TOXICITY CLASSIFICATION**

In 6 NYCRR Part 212-1.2(b) Definitions, High Toxicity Air Contaminants are defined as: chemicals that are carcinogenic to humans; or likely to be carcinogenic to humans; or chemicals that are known to cause adverse outcomes in humans for reproductive and developmental effects; or chemicals that elicit irreversible or progressive detrimental effects that have been observed in humans; or chemicals meeting the definition of Persistent and Bioaccumulative in this section; or any chemicals meeting the following LC<sub>50</sub> or LD<sub>50</sub> values:

- LD<sub>50</sub> (dermal) is equal or less than 200 mg/kg; or
- LC<sub>50</sub> (inhalation) is equal or less than 200 ppm; or
- LD<sub>50</sub> (oral) is equal or less than 50 mg/kg.

1. Chemicals Assigned to the HIGH Toxicity Classification

a) Carcinogenic to Humans

Those chemicals for which there is sufficient or suggestive evidence from epidemiological studies to support a causal association between exposure to the chemicals and cancer induction. In general, chemicals assigned to

the US EPA's 2005 classification scheme, "carcinogenic to humans", the International Agency for Research on Cancer (IARC) Group I, known human carcinogens identified by the National Toxicology Program Report on Carcinogens and the American Conference of Governmental Industrial Hygienists (ACGIH) Group A1 are within this classification.

b) Likely to be Carcinogenic to Humans

The experimental evidence required for identification as a potential human carcinogen would be positive evidence of oncogenicity in: (i) two mammalian species; (ii) one mammalian species, independently reproduced; (iii) one mammalian species, to an unusual degree with respect to incidence, latency period, site, tumor type or age at onset; or (iv) one mammalian species, supported by positive results in short-term tests which are indicative of potential oncogenic activity.

Chemicals meeting the above criteria for likely to be carcinogenic to humans will be classified as HIGH toxicity if the daily intake estimated to be associated with an excess lifetime risk of one-in-a-million (as calculated using the most appropriate low-dose extrapolation model) is 0.5 µg or less.

c) Other Chemicals Posing a Significant Risk

i) Those chemicals that cause significant adverse effects, particularly irreversible or progressive detrimental effects in humans.

ii) Those chemicals that are known to cause adverse reproductive developmental outcomes in humans.

iii) Those chemicals which are persistent in the environment and are estimated to have a half-life of  $\geq$  six months in the water or soil; or chemicals with the ability to bioconcentrate or biomagnify in the food chain having bioconcentration factors (BCFs)  $\geq$  1000 in fish or shellfish.

iv) Because the toxicological data base for many chemicals is limited, a chemical will be classified as a HIGH toxicity contaminant if its LD<sub>50</sub> or LC<sub>50</sub> meets the values cited in the beginning of this section.

## **B. AIR CONTAMINANTS WITH MODERATE TOXICITY CLASSIFICATION**

In 6 NYCRR Part 212-1.2(b) Definitions, Moderate Toxicity Air Contaminants are defined as: chemicals that are animal oncogens; or chemicals that are known to cause adverse outcomes in animal species for reproductive and developmental effects; or genotoxic chemicals; or chemicals, that when inhaled, have caused significant chronic adverse effects in test animals; or any chemicals meeting the following LC<sub>50</sub> or LD<sub>50</sub> values:

LD<sub>50</sub> (dermal) is greater than 200 mg/kg but less than 1,000 mg/kg; or  
LC<sub>50</sub> (inhalation) is greater than 200 ppm but less than 2,000 ppm; or  
LD<sub>50</sub> (oral) is greater than 50 mg/kg but less than 500 mg/kg.

### 1. Chemicals Assigned to the MODERATE Toxicity Classification

#### a) Animal Oncogens

Those chemicals for which oncogenicity has been demonstrated in at least one mammalian species but do not meet the carcinogenicity criteria for a HIGH toxicity classification.

#### b) Genotoxic Chemicals

Those chemicals which have been shown to damage DNA or chromosomes in *in-vitro* or *in-vivo* short-term tests but do not meet the criteria for a HIGH toxicity classification.

#### c) Reproductive and Developmental Toxicants

Those chemicals that cause adverse reproductive and developmental effects in at least one mammalian species but do not meet the criteria for

a HIGH toxicity classification.

d) Other Chemicals Posing a Health Risk to Humans

Those chemicals that do not meet the criteria for a HIGH toxicity classification but:

- i) cause significant chronic adverse effects in test animals when inhaled or;
- ii) cause eye, dermal and/or respiratory irritation in sensitive subpopulations (children, elderly, etc.) at concentrations equal to or below their ACGIH Threshold Limit Values (TLVs) or;
- iii) meet any of the LD<sub>50</sub> or LC<sub>50</sub> values cited in the beginning of this section.

### **C. AIR CONTAMINANTS WITH LOW TOXICITY CLASSIFICATION**

#### **1. Chemicals Assigned the LOW Toxicity Classification**

In 6 NYCRR Part 212-1.2(b) "Definitions," Low Toxicity Air Contaminants are defined as: those chemicals that might cause irritation or other reversible effects to sensitive subpopulations, and which do not meet the criteria for classification as HIGH or MODERATE toxicity contaminants.

### **III. PROCEDURES FOR CLASSIFYING AIR CONTAMINANTS FOR USE WITH PART 212**

Epidemiological studies are the preferred basis for classifying chemicals according to relative degree of toxicity. However, epidemiological studies are available for a very limited number of chemicals. Thus, the results from studies with experimental animals will also be used. To apply such data to human subjects, the use of assumptions and extrapolation methodology is required.

In order to assign air contaminants to the HIGH, MODERATE or LOW toxicity classifications, a thorough review of the published scientific and medical literature needs to be conducted. This review may include on-line database searches such as the National Library of Medicine (NLM), the US EPA Integrated Risk Information System



(IRIS), the National Toxicology Program and the Office of Environmental Health Hazard Assessment (OEHHA) at California Environmental Protection Agency (CalEPA).

The review should focus on toxicity data from subacute, acute, subchronic, chronic, developmental, reproductive, and/or special (immunological, neurological, genotoxicity) studies in humans and experimental animals after inhalation, oral or dermal exposures. Typically, the results of inhalation studies should take precedence over studies involving other routes of exposure in the development of AGCs and SGCs, particularly when the site of toxicity is where the chemical first contacts the body.

Particular attention should be given to any available information on carcinogenic and genotoxic potential and other pertinent information, including route of exposure, duration of exposure, types of tumors and target sites. Particular attention should also be given to the carcinogenic mode of action, as defined as a sequence of key events and processes starting with the interaction of an air contaminant with a cell or tissue and resulting in an observable effect. Other effects considered in the classification process are: target organ toxicity and any other related information (e.g., chemical structure and activity relationship) available that could provide additional evidence in the classification.

The above information for each air contaminant under assessment is thoroughly evaluated before a toxicity classification is made. In making a final decision, professional and scientific judgment are key factors in assigning a toxicity classification for an air contaminant.

#### **IV. PROCEDURES FOR DERIVING AGCs**

AGC values, derived from either carcinogenic or non-carcinogenic effects, are based on dose-response data from human or animal studies deemed scientifically valid by the NYSDEC. AGC values shall be based on appropriate human dose-response data, when available, or appropriate animal dose-response data in the absence of appropriate human data. Factors to consider include but are not limited to the following: route, duration and timing of exposure, species, strain, tumor types and sites, target

organs/systems, nature and severity of effects, pharmacokinetics, pharmacodynamics mode-of-action, study quality, and statistical significance. The dose-response data deemed most appropriate by the NYSDEC for evaluating potential human health risks at environmental exposures shall be used as the basis of the AGC. The extrapolation of animal data to humans (if necessary) and the extrapolation of effects observed at high doses to expected effects at low doses shall be based on methods and models that are acceptable to the NYSDEC and are consistent with risk assessment methods for carcinogenic or non-carcinogenic effects used by public health and environmental agencies.

#### **A. Based on Carcinogenic Effects That Are Linear at Low Dose<sup>9</sup>**

In 2005, the US EPA released Guidelines for Carcinogen Risk Assessment (EPA/630/P-03/001F)<sup>10</sup> and a Supplemental Guidance for Assessing Susceptibility From Early Life Exposure to Carcinogens (EPA/630/R-03/003F)<sup>11</sup>. These guidelines revised and replaced the 1986 Guidelines, published in 51 FR 33992, September 24, 1986 and the 1999 interim final guidelines. These documents provide risk assessment guidance for developing ambient air guidelines based on cancer effects observed in animals and humans. They also provide basic information to the public about the US EPA's risk assessment methods. The NYSDEC's procedures follow the federal procedures and are listed below:

1. Carcinogenic risks are calculated using dose-response data from scientifically valid animal or human studies. If available, estimates based on adequate epidemiologic data are preferred over estimates based on animal data. Models or procedures which incorporate low-dose linearity should be used unless there is sufficient scientific evidence regarding mode of action to support the use of an alternative extrapolation model. (see Section B below)

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<sup>9</sup> Linear at low doses means the frequency or severity of a toxicological response to an air contaminant varies proportionally with exposure at human exposures that are at or near the AGC for that air contaminant.

<sup>10</sup> <https://www.epa.gov/risk/guidelines-carcinogen-risk-assessment>

<sup>11</sup> <https://www.epa.gov/risk/supplemental-guidance-assessing-susceptibility-early-life-exposure-carcinogens>

2. When several chronic studies in test animals on a specific contaminant are available, the biologically acceptable data from these studies showing the greatest sensitivity shall be used as a basis to derive an AGC. Other factors considered when selecting dose-response data from carcinogenic bioassays include the biological and statistical significance of tumor type incidence and the duration and route of exposure.
3. In the absence of substantial information about the carcinogenic mode of action, the AGC shall be based on the 95 percent upper limit risk estimate from a linear low dose mathematical model that is appropriate for analysis of dose-response data and that adequately describes such data within the range of observations. The AGC will be based on the contaminant's ambient air concentration that corresponds to an upper bound excess human cancer risk of one-in-a-million after a lifetime exposure.
4. In the absence of comparative toxicological, physiological, metabolic and physiologically based pharmacokinetic (PBPK) models, the animal dose shall be converted to a human dose using the procedures recommended in US EPA (1994) for calculating a human equivalent concentration.<sup>12</sup>
5. The AGC ( $\mu\text{g}/\text{m}^3$ ) shall be based on an average 70 kg adult breathing 20 m<sup>3</sup> of air per day for a period of 70 years.
6. In some instances, the AGCs for carcinogens based on an adult exposure may be adjusted to address the cancer risks associated with childhood exposures using adjustment factors as described by the US EPA (2005b) to address early life susceptibility to carcinogens having a mutagenic mode of action.<sup>13</sup>

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<sup>12</sup> USEPA – Methods for Derivation of Inhalation Reference Concentrations and Application of Inhalation Dosimetry, EPA/600/8-90/066F October 1994

<sup>13</sup> <http://www2.epa.gov/osa/supplemental-guidance-assessing-susceptibility-early-life-exposure-carcinogens>

## **B. Based on Carcinogenic or Non-Carcinogenic Effects That Are Non-Linear at Low Dose<sup>14</sup>**

AGC values shall be based on the selected dose-response data deemed most appropriate by the NYSDEC as explained in section V below. AGC values shall be derived by extrapolating from selected dose-response data to the human dose in the concentration range of the AGC value. If the selected dose-response data is derived from an animal study, the human equivalent dose shall be obtained by applying an appropriate pharmacokinetic adjustment to the selected dose-response concentration. The use of PBPK models represent the most scientifically sound method to derive a human equivalent dose. Once the equivalent human dose is derived, the AGC shall be established by extrapolating from the human equivalent dose to the AGC by dividing the dose by an uncertainty factor. The magnitude of this factor shall ensure that exposures at or below the AGC are without appreciable risk to the human population, including children. To evaluate the non-linear effects of exposure to air contaminants, derivation of AGCs will be based on the following hierarchy of extrapolation methodologies.

### 1. Benchmark Concentration (BMC) or Benchmark Dose (BMD)

The US EPA (2012) describes BMC or BMD as:

**BMC:** A concentration of a substance that when inhaled produces a predetermined change in the response rate of an adverse effect relative to the background response rate of this effect. This predetermined change is called a “benchmark response” or BMR.

**BMD:** A dose of a substance that when ingested produces a predetermined change in the response rate of an adverse effect relative to the background response rate of this effect. This predetermined change is also called a BMR.

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<sup>14</sup> Nonlinear at low doses means the frequency or severity of a toxicological response to an air contaminant dose concentration does not vary proportionally with exposure (i.e. differing steepness of the dose-response curve slope) at human exposures that are at or near the AGC for that air contaminant.

Benchmark Response (BMR): A predetermined change in the response rate of an adverse effect relative to the background response rate of this effect.

The use of the BMD method involves fitting mathematical models to dose-response data and using the different model outcomes to select a BMD that is associated with a predetermined BMR, such as a 10% increase in the incidence of a particular lesion or a 10% decrease in body weight gain. The US EPA has developed a BMD software package that facilitates these operations by providing simple data-management tools and an easy-to-use interface to run multiple models on the same dose-response data set. The NYSDEC has evaluated the BMD software and believes it is an acceptable methodology, and will use it and its future modifications in deriving AGCs.

AGCs for health (cancer and non-cancer) endpoints will be developed or revised using this procedure for chemicals with adequate dose-response data for the health endpoint of concern.

## 2. No Observed Adverse Effect Levels (NOAEL) and Lowest Observable Adverse Effect Level (LOAEL)

A NOAEL is the lowest dose concentration tested (expressed as mg of chemical per kg of body weight per day (mg/kg/day) or ppm air concentration) that does not produce an adverse observed effect in a dose-response study derived from the results of scientifically valid human or animal study. The valid study should consider factors including, but not limited to, route of exposure, concentration, and duration of exposure, measured effects, species, and statistical significance when deriving an AGC. If a valid NOAEL has not been determined, the lowest observable adverse effect level (LOAEL) may also be used as a point of departure to extrapolate to the final AGC. A LOAEL is the lowest dose concentration tested that produces an adverse observed effect in a

dose-response study derived from the results of scientifically valid human or animal studies.

### 3. Use of Uncertainty Factors

The NOAEL, LOAEL or BMC is divided by an uncertainty factor to obtain a final AGC or US EPA Reference Concentration (RfC). The magnitude of the uncertainty factor can range several orders of magnitude and reflects the quantity and quality of the toxicologic data, human variation, the degree of confidence in the data, and the nature of the effects of concern.

The uncertainty factors used in calculating the RfCs reflect scientific judgments regarding the various types of data used to estimate these values. The factors are intended to account for: (i) variation in susceptibility among the members of the human population (i.e., inter-individual or intra-species variability); (ii) uncertainty in extrapolating animal data to humans (i.e., interspecies uncertainty); (iii) uncertainty in extrapolating from data obtained in a study with less-than-lifetime exposure (e.g., extrapolating from sub-chronic to chronic exposure); (iv) uncertainty in extrapolating from a LOAEL rather than from a NOAEL; and (v) uncertainty associated with extrapolation when the toxicological database is incomplete. The total overall uncertainty factors used in the derivations of RfCs usually range from 10 to 1,000.

### 4. Occupational Standards and Guidelines

The ACGIH's TLVs use toxicological and epidemiological information to develop their occupational guidelines on an annual basis. These and other occupational guidelines will be used to derive interim AGCs until new toxicological data are published indicating that the interim AGCs is not adequately protective of public health.

AGCs are calculated by starting with the TLV for an air contaminant and adjusting it by an uncertainty factor. The uncertainty factor for a chemical classified as HIGH or MODERATE toxicity is 420. The uncertainty factor for a

chemical classified as LOW toxicity is 42. The uncertainty factors are based on adjusting the 8-hr work day exposure to a 24-hr exposure and a 5-day work week to 7-day exposure, and by applying an additional factor of 10 for LOW toxicity or 100 for MODERATE and HIGH toxicity contaminants to compensate for applying an occupational standard to the general population.

NYSDEC releases a revised AGC/SGC table every three years and the TLVs of the preceding year are used to establish AGCs and SGCs in those cases where their use is necessary.

#### 5. Structure - Activity Relationships

If information about a chemical is limited, structure activity relationships for chemicals of close or similar structure will be used to calculate an interim AGC. It is recognized, however, that even subtle changes in structure (e.g., stereochemical differences) can dramatically alter a substance's bioactivity. An evaluation based on structure/activity relationship may not reflect the true toxicity of the chemical being evaluated, but may be the only way to derive an interim AGC for a chemical when chemical specific-toxicity data are missing.

## **V. HIERARCHY FOR ASSIGNING AMBIENT GUIDELINE CONCENTRATIONS**

### **A. GENERAL**

The AGC/SGC Tables list the AGCs and SGCs in alphabetical order and Chemical Abstract System (CAS) number order. A separate table lists the current federal and state 1-hr and annual air quality standards. Included in the AGC and SGC tables are air contaminants with "equivalent" concentrations. "Equivalent" concentrations are federal and state air quality standards that have been adjusted to 1-hr or annual averaging periods. These "equivalent" concentrations serve only as screening surrogates for determining the Environmental Rating (ER) under Part 212 and for initially assessing compliance with the federal and state air quality standards that are based on 3-hr, 8-hr, 24-hr, 1-month or 3-month averaging periods. Whenever a facility's screening maximum off-site concentration is predicted to exceed a DAR-1

“equivalent” concentration (AGC or SGC), compliance should be reassessed with the applicable federal or state air quality standard and for the correct averaging time and the modeled design value, using the modeling procedures for air quality impact analysis outlined in DAR-10 which is available at: <http://www.dec.ny.gov/chemical/8923.html>.

## **B. SHORT-TERM AND ANNUAL GUIDELINE CONCENTRATIONS (SGCs & AGCs).**

A large number of chemicals are manufactured and used in New York State (NYS) but not all pose major environmental problems. NYS agencies have focused their scientific review of the toxicity of a limited number of these problem air contaminants and have derived chemical-specific AGC/SGCs for them. Fortunately, many organizations and agencies have conducted chemical-specific toxicological assessments of a large number of air contaminants of interest to NYS. As a result, the NYSDEC uses other qualitative and quantitative information sources, in addition to its own derivations, to develop its AGC/SGC list. These groups derive short-term or annual exposure limits to protect workers or the general public from adverse exposures to toxic air contaminants. Each one of these derived exposure limits requires extensive research and development time. Consequently, the NYSDEC reviews these derivations and often uses the limits published by other agencies or organizations to derive SGCs or AGCs.

In deriving short-term or annual exposure limits, the NYSDEC gives equal weight to the derivations from NYSDEC, the US EPA and the New York State of Health (NYSDOH). The NYSDEC will evaluate the different derived exposure limits and adopt the most current scientifically valid of these preliminary values as the AGC or SGC value. If the NYSDEC, US EPA, or NYSDOH has not derived exposure limits, NYSDEC will use the TLVs including 8-hour Time-Weighted Average (TLV-TWAs) and/or instantaneous TLV Ceilings (TLV-Cs) or 15-min Short-Term Exposure Limits (TLV-STELs) published by the ACGIH. When no exposure limits or ACGIH values are available, the NYSDEC will often derive AGC/SGC values based on an analogy to a compound with similar structural properties. Lastly, when no exposure limits or ACGIH



values are available and no analogies can be made, the NYSDEC will assign a conservative *de minimis* limit as the AGC.

SGCs are chosen to protect the general population from adverse, acute, 1-hour exposures. AGCs are chosen to protect against adverse, long-lasting effects from exposure lasting months, years, or lifetimes and are based upon a conservative annual exposure based on either carcinogenic or non-carcinogenic health endpoints. When an AGC is assigned based upon carcinogenic health effects, the AGC concentration corresponds to an upper-bound excess lifetime cancer risk of one-in-one-million people. These carcinogenic-based AGCs can be identified in the AGC/SGC Tables by a “U” under column “1” of the codes heading.

AGC/SGC values in the tables are derived from the following sources. The source of each AGC/SGC assignment can be identified under the “W” (Who derived?) column heading in the AGC/SGC tables.

**1. New York State Department of Environmental Conservation (D).**

The NYSDEC derives short-term (1-hr) and annual exposure limits (SGCs and AGCs, respectively) to protect the general population from adverse acute and long-term (months, years, or a lifetime) inhalation exposures. Some of these limits are derived independently by the NYSDEC and others are based upon the exposure data published by other agencies like California’s CalEPA. The CalEPA derives many acute and chronic Reference Exposure Limits (RELs) and cancer Unit Risk Estimates (UREs) to protect the general population from adverse inhalation exposures. These values are available at:

<http://www.oehha.ca.gov/air.html>.

**2. United States Environmental Protection Agency - (E).**

The US EPA derives both carcinogenic and non-carcinogenic annual exposure limits for use in assessing the impact from chronic exposure. RfCs are inhalation exposure limits designed to protect against adverse chronic non-carcinogenic effects. RfCs are “an estimate of a continuous inhalation exposure

to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious non-cancer effects during a lifetime.” Whereas, carcinogenic exposure limits are derived from the US EPA’s URE values and are used to protect the public from the additional one-in-one-million excess cancer risk over a lifetime of continuous exposure. For air contaminants classified by the US EPA as “possible” carcinogens, the NYSDEC will review the URE values on a case-by-case basis because of the scientific uncertainty surrounding the validity of their carcinogenicity. UREs and RfCs values are published on the IRIS website available at: <http://www.epa.gov/iris/>.

### **3. New York State Department of Health - (H).**

The NYSDOH derives both annual and short-term exposure limits to protect the general population from the effects of chronic (e.g. months, years, lifetime) and acute inhalation exposures to toxic air contaminants, respectively. The NYSDEC will adopt the NYSDOH’s annual and 1-hr exposure limits as their AGC and SGC values, respectively, when the NYSDOH proposes a more scientifically valid guideline concentration than any other limit derived by the NYSDEC or US EPA.

### **4. 2018 American Conference of Governmental Industrial Hygienists (T).**

A significant number of the AGCs in the DAR-1 AGC/SGC Tables are based on the ACGIH’s TLV-TWAs, which are published and updated on an annual basis. These limits “represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse health effects.” This repeated exposure is based on an 8-hr workday and 40- hr workweek. AGCs will be based on adjustments to the TLV-TWAs when no annual exposure limits have been derived by the NYSDEC, NYSDOH or US EPA.

### **5. 2018 ACGIH TLV-Cs (Y) and STELs (Z).**

The ACGIH publishes acute exposure limits for many contaminants. Each short-term acute limit is denoted as a TLV-C or TLV-STEL. A TLV-C represents

a maximum exposure concentration that should never be exceeded at any time during a workday. A TLV-STEL is defined as a 15-min time weighted average exposure which should never be exceeded at any time during the workday. TLV-Cs and TLV-STELs are adjusted and used to derive SGCs when no 1-hr exposure limits have been derived by the NYSDEC, NYSDOH or US EPA.

The NYSDEC derives SGCs from TLV-Cs and TLV-STELs by dividing the concentration by an additional safety factor of ten (10). This additional safety factor is applied because the TLV-Cs and TLV-STELs are applicable to a healthy working population rather than a potentially sensitive general population.

#### **6. Analogy by the NYSDEC (A).**

When limited or no toxicological data is available from the above cited agency sources, the NYSDEC will sometimes derive an AGC or SGC value based on an analogy to a similar compound. Analogies are made when compounds have similar chemical structures. When an analogy is made, both compounds are assumed to cause similar toxic or deleterious effects. However, this may not always be true as even subtle changes in structure (e.g., stereo-chemical differences) can alter a substance's bioactivity.

#### **7. High Toxicity *de minimis* limit by the NYSDEC (\*).**

When a high toxicity air contaminant does not have an AGC or SGC, the DEC will assign the high toxicity *de minimis* limit ( $2.0 \times 10^{-5} \mu\text{g}/\text{m}^3$ ) as the AGC. This limit represents a concentration at which 95% of the carcinogenic AGCs have less stringent/conservative (i.e. higher) values.

### **C. FEDERAL AND STATE AIR QUALITY STANDARDS.**

The federal and state air quality standards are listed in a separate table prior to the AGC/SGC tables. These standards are not AGC or SGC values and are only

included in the DAR-1 document to facilitate the screening and regulatory procedures under 6 NYCRR Part 212.

### **1. Federal Annual and 24-hour PM<sub>2.5</sub> Standard.**

The federal annual PM<sub>2.5</sub> standard is 12 µg/m<sup>3</sup> for fine Particulate Matter (PM) which includes PM measuring 2.5 micrometers (µm) or less. The federal 24-hour PM<sub>2.5</sub> standard is 35 µg/m<sup>3</sup> for fine PM. It has been assigned solely to the NY identification number for PM<sub>2.5</sub> (NY075-02-5). Unlike the total suspended PM standard, the more stringent PM<sub>2.5</sub> standard was not assigned to particulate contaminants with less stringent, preliminary AGC values. As explained in section D, the annual PM<sub>2.5</sub> standard is a federal standard and not a guideline value.

### **2. Federal and State Annual and 1-hr Sulfur Dioxide (SO<sub>2</sub>) Standards.**

The state annual SO<sub>2</sub> standard<sup>15</sup> is 80 µg/m<sup>3</sup>. The federal 1-hr SO<sub>2</sub> standard is 196 µg/m<sup>3</sup>. These standards are identified by the CAS for SO<sub>2</sub> (07446-09-5). The annual and 1-hr SO<sub>2</sub> standards are federal standards and not guideline values.

### **3. Federal Annual and 1-hr NO<sub>2</sub> Standards.**

The federal annual NO<sub>2</sub> standard is 100 µg/m<sup>3</sup>. The federal 1-hr NO<sub>2</sub> standard is 188 µg/m<sup>3</sup>. These standards are identified by the CAS for NO<sub>2</sub> (10102-44-0). The annual and 1-hr NO<sub>2</sub> standards are federal standards and not guideline values.

### **4. Federal 1-hr Ozone Standard.**

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<sup>15</sup> The SO<sub>2</sub> annual standard was slated for removal but will remain in effect in certain areas including: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which the State needs to resubmit all or part of its State Implementation Plan to demonstrate attainment of the require NAAQS. NYS falls under number 1.

On June 15, 2005, the US EPA revoked the 1-hr ozone standard for all areas except the 8-hr ozone nonattainment Early Action Compact (EAC) areas (those do not yet have an effective date for their 8-hr designations).

The 1-hr ozone standard is not listed in the standards table, because ozone is generally considered an unstable secondary pollutant formed in the atmosphere by the photochemical reaction of nitrogen oxides and reactive hydrocarbons in the presence of high temperatures and ultraviolet light. As such, the US EPA and NYSDEC do not have an appropriate model to calculate ozone impacts from a single source.

#### **5. State 1-hr H<sub>2</sub>S Standard.**

The New York State 1-hr standard for H<sub>2</sub>S is 14 µg/m<sup>3</sup>. This standard is identified by the CAS for H<sub>2</sub>S (07783-06-4). The 1-hr H<sub>2</sub>S standard is listed in the standards table, it is a NYS standard and not a guideline value.

#### **D. DAR-1 “EQUIVALENT” CONCENTRATIONS (s).**

A DAR-1 “equivalent” concentration will be listed in the AGC/SGC Tables when the federal or state standard requires an averaging time to demonstrate compliance that is not based on the one-hour or annual averaging time found in the AGC/SGC Tables. These “equivalent” concentrations are not true air quality standards. They can be identified by a lowercase letter “s” under the “W” (Who derived?) heading. When a source screening predicted maximum off-site concentration impact exceeds an “equivalent” concentration, compliance should be reassessed for the applicable federal or state air quality standard using a more refined model and for the correct averaging time.

The following DAR-1 “equivalent” concentrations have been assigned in the AGC/SGC Tables. Each is based on the US EPA or NYSDEC averaging time conversion factors stated below in Table 1. Those derived by the US EPA are

documented in *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised (EPA-454/R-92-019)*. Those derived by the DEC represent worst case adjustment factors.

**Table 1.**  
**Averaging Time Conversion Factors**

<b>Source</b>	<b>Federal or State Standard</b> <b><u>Convert From:</u></b>	<b>Averaging Time Conversion Factor</b> <b><u>Divisor:</u></b>	<b>DAR-1 “Equivalent” Concentration</b> <b><u>Convert To:</u></b>
DEC	Maximum 12-hr	0.7	Maximum 1-hr
US EPA	Maximum 24-hr	0.4	Maximum 1-hr
DEC	Maximum month	12	Maximum Annual
DEC	Maximum 3-month	4	Maximum Annual

Example: DAR-1 Equivalent 1-hr PM concentration. = (Federal 24-hr PM standard) / (0.4)

**1. DAR-1 “Equivalent” 1-hr PM<sub>10</sub> Concentration.**

The Federal 24-hr PM<sub>10</sub> standard is 150 µg/m<sup>3</sup>. This standard can be converted into a DAR-1 “equivalent” 1-hr PM<sub>10</sub> concentration to make it applicable to determine an ER. The DAR-1 “equivalent” concentration has been assigned to the NY number for PM (NY075-00-0) and other specific PM compounds for which the DAR-1 “equivalent” concentration is more conservative (lower concentration) than any calculated or derived SGC value. When a specific compound is classified as PM, the DAR-1 “equivalent” 1-hr PM<sub>10</sub> concentration (380 µg/m<sup>3</sup>) will be listed as the contaminant specific “SGC” when it is less than the calculated or derived SGC value for the contaminant specific PM compound.

As a guideline for assessing compliance with the federal 24-hr PM<sub>10</sub> standard, the following DAR-1 “equivalent” 1-hr PM<sub>10</sub> concentration was derived from the 24-hr PM<sub>10</sub> standard:

- DAR-1 “equivalent” 1-hr PM<sub>10</sub> Concentration =  $150 / 0.4 = 380 \mu\text{g}/\text{m}^3$ .

## **2. DAR-1 Annual PM<sub>10</sub> Standard**

A surrogate PM<sub>10</sub> annual standard will be used when the concentration of a chemical’s derived AGC value is less conservative (higher concentration) than the surrogate and it is classified as a particulate. For example, chromium metal would have a derived AGC that would be higher than the PM<sub>10</sub> surrogate of 45  $\mu\text{g}/\text{m}^3$  so the surrogate is used for the AGC.

## **3. DAR-1 “Equivalent” Annual Lead (Pb) Standard.**

In October 2008, the US EPA promulgated changes to the National Ambient Air Quality Standard (NAAQS) for lead. The Federal NAAQS standard for lead is  $0.15 \mu\text{g}/\text{m}^3$ , based upon a 3-month rolling average.

This NAAQS standard can be converted into a DAR-1 “equivalent” annual lead standard to make it easier to assess compliance with Part 212. This DAR-1 “equivalent” concentration has been assigned to lead (CAS: 07439-92-1) and lead compounds for which the DAR-1 “equivalent” lead concentration is less than any calculated or derived AGC value. All “equivalent” concentrations should be treated as guideline concentrations for determining an ER or conducting an initial compliance assessment with the federal standard. The following DAR-1 “equivalent” annual concentration was derived for lead:

- DAR-1 “equivalent” Annual Lead Concentration =  $0.15/4 = 0.038 \mu\text{g}/\text{m}^3$  (Pb).

#### 4. DAR-1 “Equivalent” 1-hr and Annual Fluoride Standards.

NYS has several air quality standards for gaseous fluorides. Fluorides are defined as any compound that tests as fluoride by the appropriate method. Therefore, the regulation (Subpart 257-8) applies to all **inorganic** gaseous compounds which contain the element fluorine (F). There are four separate gaseous fluoride standards with different averaging times: 1-month ( $0.8 \mu\text{g}/\text{m}^3$ ), 1-week ( $1.65 \mu\text{g}/\text{m}^3$ ), 24-hr ( $2.85 \mu\text{g}/\text{m}^3$ ) and 12-hr ( $3.7 \mu\text{g}/\text{m}^3$ ). None of these standards have 1-hr or annual averaging periods so DAR-1 “equivalent” concentrations were derived for these two averaging times.

A DAR-1 “equivalent” annual concentration was derived for fluoride compounds as a guideline for determining ERs or assessing an initial compliance analysis with the NYS fluoride standards. This “equivalent” annual concentration was assigned to fluorine (CAS: 07782-41-4) and other inorganic gaseous fluoride compounds for which the DAR-1 “equivalent” concentration was less than any calculated or derived AGC value. The DAR-1 “equivalent” annual concentration was based solely on the 1-month standard for gaseous fluoride as it is reasonably protective of both the 1-month and 1-week standards.

A DAR-1 “equivalent” 1-hr concentration was also derived for fluoride compounds as a guideline for assessing compliance with the short-term NYS fluoride standards. This “equivalent” concentration was assigned to fluorine (CAS: 07782-41-4) and other inorganic contaminants for which the DAR-1 “equivalent” fluoride concentration was less than any calculated or derived SGC value. The DAR-1 “equivalent” 1-hr concentration was based on the 12-hr standard for gaseous fluorine and is protective of both the 24-hr and 12-hr standards.

- DAR-1 “Equivalent” Annual Fluoride Concentration =  $0.8/12 = 0.067 \mu\text{g}/\text{m}^3$  (F).
- DAR-1 “Equivalent” 1-hr Fluoride Concentration =  $3.7/0.7 = 5.3 \mu\text{g}/\text{m}^3$  (F).



FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

CREATED 02-12-2021

CHEMICAL NAME	CAS NUMBER	1-HOUR µg/m <sup>3</sup>	8-HOUR µg/m <sup>3</sup>	24-HOUR µg/m <sup>3</sup>	3-MONTH µg/m <sup>3</sup>	ANNUAL µg/m <sup>3</sup>	State/Federal
CARBON MONOXIDE	00630-08-0	40,000	10,000				Federal
LEAD	07439-92-1				0.15		Federal
SULFUR DIOXIDE	07446-09-5	196				80	Federal
HYDROGEN SULFIDE	07783-06-4	14					State
NITROGEN DIOXIDE	10102-44-0	188				100	Federal
PARTICULATE (PM-10)	NY075-00-5			150			Federal
PARTICULATE (PM-2.5)	NY075-02-5			35		12	Federal

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
ACETALDEHYDE	00075-07-0			470.0	D	4.5E-01		E	H	U	H				
ACETAMIDE	00060-35-5			----		5.0E-02		D	M	U	H				
ACETIC ACID	00064-19-7			3700.0	Z	60.0		T							
ACETIC ACID, Co	00071-48-7	Co	07440-48-4	----		3.0E-03		D		H		R		Q	
ACETIC ACID, Pb	00301-04-2	Pb	07439-92-1	----		6.0E-02		s	H		H		R	Q	
ACETIC ACID, Pb SALT, BASIC	51404-69-4	Pb3	07439-92-1	----		4.9E-02		s	H		H		R	Q	
ACETIC ANHYDRIDE	00108-24-7			1250.0	Z	10.0		T	M						
ACETOIN	00513-86-0		00078-93-3	13000.0	A	5000.0		A	M				R	R	
ACETONE	00067-64-1			180000.0	Z	30000.0		H	L						
ACETONE CYANOHYDRIN	00075-86-5			500.0	Y	----		X	H						
ACETONITRILE	00075-05-8			----		60.0		E	M		H				
ACETONITRILE, CHLORO-	00107-14-2		00075-05-8	----		60.0		A		H			R		
ACETOPHENONE	00098-86-2			----		120.0		T		H					
ACETYL CHLORIDE	00075-36-5		07647-01-0	2100.0	A	20.0		A	M				R	R	
ACETYLENE TETRABROMANE	00079-27-6			----		3.3		T							
ACROLEIN	00107-02-8			2.5	D	3.5E-01		D	H		H				
ACRYLAMIDE	00079-06-1			----		4.1E-03		E	H	U	H				
ACRYLIC ACID	00079-10-7			6000.0	D	1.0		E	M		H				
ACRYLIC MONOMERS	09081-82-7		00079-10-7	6000.0	A	1.0		A	M				R	R	
ACRYLONITRILE	00107-13-1			----		1.5E-02		E	H	U	H				
ACTINOLITE	77536-66-4		01332-21-4	----		1.6E-05		A	H	U	H	A	R		
ADIPIC ACID	00124-04-9			----		12.0		T							
ADIPONITRILE	00111-69-3			----		21.0		T							
ALACHLOR	15972-60-8			----		2.4		T	M						
ALDICARB	00116-06-3			----		1.2E-02		T							
ALDRIN	00309-00-2			----		2.0E-04		E	H	U					
ALLYL ALCOHOL	00107-18-6			----		2.8		T	H						
ALLYL BROMIDE	00106-95-6			99.0	Z	1.2		T							
ALLYL CHLORIDE	00107-05-1			600.0	Z	1.0		E	M		H				
ALLYL GLYCIDYL ETHER	00106-92-3			----		11.0		T							
ALLYL METHACRYLATE	00096-05-9			----		12.3		T							
ALLYL PROPYL DISULFIDE	02179-59-1			----		7.1		T							
ALPHA-CYPERMETHRIN	67375-30-8		08003-34-7	----		12.0		A	M					R	
ALUMINUM	07429-90-5			----		2.4		T							
ALUMINUM OXIDE	01344-28-1		07429-90-5	----		2.4		A					R		
ALUMINUM, TRIETHYL-	00097-93-8			----		10.0		T	H						Q
AMINODIPHENYL, PARA-	00092-67-1			----		2.0E-05		*	H		H	A			
AMINOPROPYLTRIETHOXYSILANE, 3-	00919-30-2		07803-62-5	----		16.0		A	M				R		
AMINOPYRIDINE, 2	00504-29-0			----		4.8		T							
AMITROLE	00061-82-5			----		4.8E-01		T							
AMMONIA	07664-41-7			2400.0	Z	500.0		E	L						
AMMONIUM BISULFATE	07803-63-6			120.0	D	----		X							
AMMONIUM BROMIDE	12124-97-9		12125-02-9	380.0	s	24.0		A	M				R	R	
AMMONIUM CHLORIDE	12125-02-9			380.0	s	24.0		T	M					R	
AMMONIUM PERFLUOROCTANOATE	03825-26-1		00335-67-1	----		5.3E-03		A	H				R		
AMMONIUM PERSULFATE	07727-54-0			----		2.8E-01		T							Q
AMMONIUM SULFAMATE	07773-06-0			----		240.0		T	L						
AMMONIUM SULFATE	07783-20-2			120.0	D	----		X	L						
AMOSITE	12172-73-5		01332-21-4	----		1.6E-05		A	H	U	H	A	R		
AMYL ACETATE, 3-	00620-11-1			53000.0	Z	630.0		T							
AMYL ACETATE, N-	00628-63-7			53000.0	Z	630.0		T							
AMYL ACETATE, SEC-	00626-38-0			53000.0	Z	630.0		T							
AMYL ACETATE, TERT-	00625-16-1			53000.0	Z	630.0		T							
AMYL METHYL ETHER, TERT-	00994-05-8			----		200.0		T							
ANILINE	00062-53-3			----		6.3E-01		D	H	U	H				
ANISIDINE	29191-52-4			----		1.2		T	M						
ANISIDINE, ORTHO-	00090-04-0			----		1.2		T	M		H				

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
ANISIDINE, PARA-	00104-94-9			----		1.2		T	M						
ANTHOPHYLLITE	77536-67-5		01332-21-4	----		1.6E-05		A	H	U	H	A	R		
ANTIMONATE, HEXAFLUORO, SODIUM	16925-25-0			----		2.5		T		H				Q	
ANTIMONY	07440-36-0			----		1.2		T	M	H					
ANTIMONY OXIDE	01314-60-9			----		1.3		T		H				Q	
ANTIMONY TRICHLORIDE	10025-91-9			----		2.2		T		H				Q	
ANTIMONY TRIOXIDE	01309-64-4	Sb2		----		2.4E-01		E	M	H	B			Q	
ANTIMONY TRISULFIDE	01345-04-6			----		1.7		T		H		R		Q	
ANTU	00086-88-4			----		7.1E-01		T							
AQUA AMMONIA	01336-21-6		07664-41-7	2400.0	A	500.0		A	L				R	R	
ARAMITE	00140-57-8			----		1.4E-01		E		U					
ARSENIC	07440-38-2	As		----		2.3E-04		E	H	U	H	A			
ARSENIC ACID	01327-52-2	As	07440-38-2	----		4.4E-04		E	H	U	H		R	Q	
ARSENIC ACID	07778-39-4	As	07440-38-2	----		4.4E-04		E	H	U	H	A	R	Q	
ARSENIC PENTOXIDE	01303-28-2	As2	07440-38-2	----		3.5E-04		E	H	U	H	A	R	Q	
ARSENIC TRIOXIDE	01327-53-3	As2	07440-38-2	----		3.0E-04		E	H	U	H	A	R	Q	
ARSENOUS ACID	13464-58-9	As		----		3.9E-04		E	H		H	A	R	Q	
ARSENOUS ACID, TRIETHYL ESTER	03141-12-6	As	07440-38-2	----		6.4E-04		E		U	H		R	Q	
ARSENOUS TRICHLORIDE	07784-34-1	As	07440-38-2	----		5.6E-04		E	H	U	H		R	Q	
ARSENOUS TRIFLUORIDE	07784-35-2	As	07440-38-2	----		4.0E-04		E	H	U	H		R	Q	
ARSENOZO III	01668-00-4	As2	07440-38-2	----		1.2E-03		E	H	U	H		R	Q	
ARSINE	07784-42-1			2.0E-01	D	5.0E-02		E	H		H				
ASBESTOS	01332-21-4			----		1.6E-05		D	H	U	H	A			
ATRAZINE	01912-24-9			----		4.8		T							
AURAMINE	02465-27-2			----		2.0E-05		*	H						
AZINPHOS-METHYL	00086-50-0			----		4.8E-01		T							
AZOBENZENE	00103-33-3			----		3.2E-02		E		U					
BACILLOMYCIN	01395-21-7			6.0E-03	Y	----		X	H						
BARIUM	07440-39-3	Ba		----		5.0E-01		H	M						
BARIUM CHROMATE	10294-40-3	Cr	18540-29-9	----		9.8E-05		H	H	U	H		R	Q	
BARIUM CYANIDE	00542-62-1	C2N2	00057-12-5	380.0	s	3.5		D	H	H		R	R	Q	Q
BARIUM LEAD SULFATE	42579-89-5	Pb	07439-92-1	----		9.8E-02		s	H	H		R		Q	
BARIUM SULFATE	07727-43-7			----		12.0		T	M						
BENDIOCARB	22781-23-3			----		2.4E-01		T							
BENOMYL	17804-35-2			----		2.4		T							
BENZENE	00071-43-2			27.0	D	1.3E-01		E	H	U	H	A			
BENZENEARSONIC ACID	00098-05-5	As	07440-38-2	----		6.2E-04		E	H	U	H		R	Q	
BENZIDINE	00092-87-5			----		9.0E-06		E	H	U	H	A			
BENZO(A)ANTHRACENE	00056-55-3		00050-32-8	----		1.0E-02		A	H	U	H	B	R		
BENZO(A)PYRENE	00050-32-8			----		1.0E-03		E	H	U	H	B			
BENZO(B)FLUORANTHENE	00205-99-2		00050-32-8	----		1.0E-02		A	H	U	H	B	R		
BENZO(K)FLUORANTHENE	00207-08-9		00050-32-8	----		1.0E-01		A	H	U	H		R		
BENZOTRICHLORIDE	00098-07-7			80.0	Y	----		X		H	B				
BENZOYL CHLORIDE	00098-88-4			280.0	Y	----		X							
BENZOYL PEROXIDE	00094-36-0			----		12.0		T							
BENZYL ACETATE	00140-11-4			----		150.0		T							
BENZYL ALCOHOL	00100-51-6			1300.0	D	350.0		D	M						
BENZYL CHLORIDE	00100-44-7			240.0	D	2.0E-02		D	H	U	H				
BERULLIUM ZINC SILICONE	39413-47-3	Be	07440-41-7	----		7.8E-03		E	H	U	H	A	R	Q	
BERYLLIUM	07440-41-7	Be		----		4.2E-04		E	H	U	H	A			
BERYLLIUM FLUORIDE	07787-49-7	Be	07440-41-7	----		2.2E-03		E	H	U	H		R	Q	
BERYLLIUM OXIDE	01304-56-9	Be	07440-41-7	----		1.2E-03		E	H	U	H		R	Q	
BERYLLIUM SULFATE	13510-49-1	Be	07440-41-7	----		5.0E-03		E	H	U	H		R	Q	
BIFENTHRIN	82657-04-3		08003-34-7	----		12.0		A	M				R		
BIPHENYL	00092-52-4			----		3.1		T	M	H					
BIS(CHLOROMETHYL)ETHER	00542-88-1			----		1.6E-05		E	H	U	H	A			
BISMUTH TELLURIDE	01304-82-1			----		11.9		T					R		

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
BORATE	10043-35-3			----		4.8		T							
BORATES, ANHYDROUS	01330-43-4			----		4.8		T							
BORATES, DECAHYDRATE	01303-96-4			----		4.8		T							
BORATES, PENTAHYDRATE	12179-04-3			----		4.8		T							
BORON OXIDE	01303-86-2			----		24.0		T							
BORON TRIBROMIDE	10294-33-4			715.0	Z	----		X							
BORON TRICHLORIDE	10294-34-5			335.0	Z	----		X							
BORON TRIFLUORIDE	07637-07-2	F3	*FLUORIDE*	6.3	s	8.0E-02		s					R	R	Q Q
BORON TRIFLUORIDE DIETHYL ETHER	00109-63-7			405.0	Y	1.4		T							
BORON TRIFLUORIDE DIMETHYL ETHER	00353-42-4			325.0	Y	1.1		T							
BROMACIL	00314-40-9			----		24.0		T							
BROMADIOLONE	28772-56-7			----		2.0E-05		* H							
BROMINE	07726-95-6			130.0	Z	1.6		T M							
BROMINE PENTAFLUORIDE	07789-30-2	F5	*FLUORIDE*	9.8	s	1.2E-01		s					R	R	Q Q
BROMOBENZENE	00108-86-1			----		60.0		E							
BROMODICHLOROMETHANE	00075-27-4			----		70.0		D M							
BROMOFORM	00075-25-2			----		9.1E-01		E M U H							
BROMOPROPANE, 1	00106-94-5			----		4.3E-01		H H U							
BUTADIENE POLYMER	69102-90-5		00106-99-0	----		3.3E-02		A H U					R		
BUTADIENE, 1,3-	00106-99-0			----		3.3E-02		E H U H B							
BUTANOL	35296-72-1		00071-36-3	----		1500.0		A L					R		
BUTANOL, SEC-	00078-92-2			----		710.0		T							
BUTENE, 1-	00106-98-9			----		1400.0		T							
BUTENE, 2-	00107-01-7			----		1400.0		T							
BUTENE, CIS-2-	00590-18-1			----		1400.0		T							
BUTENE, TRANS-2-	00624-64-6			----		1400.0		T							
BUTOXYETHANOL, 2-	00111-76-2			4700.0	D	1600.0		E M							
BUTOXYETHYL ACETATE	00112-07-2			----		310.0		T M H							
BUTYL ACETATE	00123-86-4			71300.0	Z	565.0		T L							
BUTYL ACETATE, SEC-	00105-46-4			71300.0	Z	565.0		T							
BUTYL ACETATE, TERT-	00540-88-5			71300.0	Z	565.0		T							
BUTYL ACRYLATE, N-	00141-32-2			----		26.0		T							
BUTYL ALCOHOL, N-	00071-36-3			----		1500.0		T L							
BUTYL ALCOHOL, TERT-	00075-65-0			----		720.0		T							
BUTYL BENZYL PHTHALATE	00085-68-7		00117-81-7	----		4.2E-01		A M U					R		
BUTYL CARBITOL	00112-34-5		00110-80-5	370.0	A	200.0		A M H					R	R	
BUTYL CARBITOL ACETATE	00124-17-4		00110-80-5	370.0	A	200.0		A M H					R	R	
BUTYL CHROMATE, TERT-	01189-85-1	Cr	18540-29-9	23.0	Y	8.9E-05		H H U H					R	Q Q	
BUTYL GLYCIDYL ETHER	02426-08-6			----		38.0		T							
BUTYL LACTATE, N-	00138-22-7			----		71.0		T							
BUTYL MERCAPTAN	00109-79-5			----		4.3		T M							
BUTYL PHTHALATE GLYCOL	00085-70-1		00084-66-2	----		12.0		A M					R		
BUTYLAMINE, N-	00109-73-9			1500.0	Y	----		X M							
BUTYLENE	25167-67-3			----		1400.0		T							
BUTYLPHENOL, O-SEC-	00089-72-5			----		74.0		T							
BUTYLTOLUENE, P-TERT-	00098-51-1			----		15.0		T							
BUTYROLACTONE, GAMMA-	00096-48-0		00057-57-8	----		3.6		A M					R		
CADMIUM	07440-43-9	Cd		----		2.4E-04		D H U H B							
CADMIUM CHLORIDE	10108-64-2	Cd	07440-43-9	----		3.9E-04		D H U H					R	Q	
CADMIUM CHLORIDE HYDRIDE	07790-78-5	Cd	07440-43-9	----		4.3E-04		D H U H					R	Q	
CADMIUM CYANIDE	00542-83-6	Cd	07440-43-9	380.0	s	3.5E-04		D H U H					R	R	Q Q
CADMIUM DIETHYLDITHIOCARBAMATE	14239-68-0	Cd	07440-43-9	----		8.7E-04		D H U H					R	Q	
CADMIUM IODIDE	07790-80-9	Cd	07440-43-9	----		7.8E-04		D H U H					R	Q	
CADMIUM MERCURY SULFIDE	01345-09-1	Cd	07440-43-9	----		8.1E-04		D H U H					R	Q	
CADMIUM NITRATE	10325-94-7	Cd	07440-43-9	----		5.1E-04		D H U H					R	Q	
CADMIUM NITRATE TETRAHYDRATE	10022-68-1	Cd	07440-43-9	----		6.6E-04		D U H					R	Q	
CADMIUM OXIDE	01306-19-0	Cd	07440-43-9	----		2.7E-04		D H U H					R	Q	

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
CADMIUM SELENIDE	01306-24-7	Cd	07440-43-9	----		4.1E-04			D	H	U	H		R	Q
CADMIUM STEARATE	02223-93-0	Cd	07440-43-9	----		1.5E-03			D	H	U	H		R	Q
CADMIUM SULFATE	10124-36-4	Cd	07440-43-9	----		4.5E-04			D	H	U	H		R	Q
CADMIUM SULFIDE	01306-23-6	Cd	07440-43-9	----		3.1E-04			D	H	U	H		R	Q
CADMIUM ZINC SULFIDE	12442-27-2	Cd	07440-43-9	----		5.2E-04			D	H	U	H		R	Q
CADUSAFOS	95465-99-9			----		2.4E-03			T						
CALCIUM ARSENATE	07778-44-1	As2	07440-38-2	----		6.1E-04			E	H	U	H		R	Q
CALCIUM CHROMATE	13765-19-0	Cr	18540-29-9	----		6.1E-05			H	H	U	H	B	R	Q
CALCIUM CYANAMIDE	00156-62-7			----		1.2			T		H				
CALCIUM CYANIDE	00592-01-8	C2N2	00057-12-5	380.0	s	3.5			D	H		H		R	R Q
CALCIUM HYDROXIDE	01305-62-0			----		12.0			T						
CALCIUM OXIDE	01305-78-8			----		4.8			T						
CALCIUM SILICATE	13983-17-0			----		2.4			T						
CALCIUM SULFATE	07778-18-9			----		24.0			T						
CAMPHOR	00076-22-2			1900.0	Z	29.0			T						
CAPROLACTAM	00105-60-2			----		12.0			T						
CAPTAFOL	02425-06-1			----		2.4E-01			T			B			
CAPTAN	00133-06-2			----		12.0			T		H				
CARBARYL	00063-25-2			----		1.2			T		H				
CARBENDAZIM	10605-21-7		01563-66-2	----		2.4E-01			A	M				R	
CARBOFURAN	01563-66-2			----		2.4E-01			T	M					
CARBON BLACK	01333-86-4			----		7.0			T	M					
CARBON DIOXIDE	00124-38-9			----		21000.0			T						
CARBON DISULFIDE	00075-15-0			6200.0	D	700.0			E	M		H			
CARBON TETRABROMIDE	00558-13-4			410.0	Z	3.3			T						
CARBON TETRACHLORIDE	00056-23-5			1900.0	D	1.7E-01			E	H	U	H	B		
CARBONIC ACID, Mn SALT	00598-62-9	Mn	07439-96-5	----		1.5E-01			E		H		R		
CARBONIC ACID, Ni SALT	03333-67-3	Ni	07440-02-0	2.0E-01	D	8.5E-03			E	H	U	H		R R Q Q	
CARBONYL FLUORIDE	00353-50-4	F2	*FLUORIDE*	9.2	s	1.2E-01			s					R R Q Q	
CARBONYL SULFIDE	00463-58-1			250.0	D	28.0			D	M		H			
CARENE, 3	13466-78-9			----		270.0			T						
CARFENTHAZONE-ETHYL	128639-02-1			----		2.4			T						
CATECHOL	00120-80-9		00108-95-2	5800.0	A	20.0			A		H		R		
CAESIUM HYDROXIDE	21351-79-1			----		4.8			T						
CHLORDANE	00057-74-9		12789-03-6	----		1.0E-02			E	H	U	H		R	
CHLORDANE, TECHNICAL	12789-03-6			----		1.0E-02			E	H	U				
CHLORDECONE	00143-50-0			----		2.0E-05			*	H					
CHLORINATED DIPHENYL OXIDE	31242-93-0			----		1.2			T						
CHLORINE	07782-50-5			116.0	Z	2.0E-01			D	M		H			
CHLORINE DIOXIDE	10049-04-4			28.0	Y	2.0E-01			E	M					
CHLORINE TRIFLUORIDE	07790-91-2	F3	*FLUORIDE*	8.6	s	1.1E-01			s					R R Q Q	
CHLORO(TRIFLUOROMETHYL)BENZENE	00098-56-6			----		43.0			D	M					
CHLORO-1-PROPANOL, 2-	00078-89-7			----		9.5			T						
CHLORO-2-PROPANOL, 1-	00127-00-4			----		9.5			T						
CHLOROACETALDEHYDE	00107-20-0			320.0	Y	----			X						
CHLOROACETIC ACID	00079-11-8			30.0	D	7.0			D	H		H		R	
CHLOROACETONE	00078-95-5			380.0	Y	----			X						
CHLOROACETOPHENONE, 2-	00532-27-4			----		3.0E-02			E	M		H			
CHLOROACETYLCHLORIDE	00079-04-9			69.0	Z	5.5E-01			T						
CHLOROANILINE, PARA-	00106-47-8		00062-53-3	----		6.3E-01			A	M	U			R	
CHLOROBENZENE	00108-90-7			----		60.0			H	M		H			
CHLOROBENZMALONONITRILE	02698-41-1			39.0	Y	----			X						
CHLOROBROMOMETHANE	00074-97-5			----		2500.0			T						
CHLORODIFLUOROETHANE	00075-68-3			----		50000.0			E	L					
CHLORODIFLUOROMETHANE	00075-45-6			----		50000.0			E						
CHLOROFORM	00067-66-3			150.0	D	14.7			H	H	U	H			
CHLOROMETHANE	00074-87-3			22000.0	D	90.0			E	M		H			

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
CHLOROMETHYL METHYL ETHER	00107-30-2		00542-88-1	----		1.6E-05		A	H	U	H	B	R		
CHLORONITROANILINE, 2,4-	00121-87-9		00100-01-6	----		7.1		A	M				R		
CHLORONITROBENZENE, PARA-	00100-00-5			----		1.5		T	M						
CHLORONITROPROPANE	00600-25-9			----		24.0		T							
CHLOROPENTAFLUOROETHANE	00076-15-3			----		15000.0		T							
CHLOROPICRIN	00076-06-2			29.0	D	4.0E-01		D							
CHLOROPRENE, BETA-	00126-99-8			----		3.3E-03		E		H	B				
CHLOROPROPIONIC ACID, 2-	00598-78-7			----		1.0		T							
CHLOROSTYRENE, ORTHO-	02039-87-4			43000.0	Z	670.0		T							
CHLOROTOLUENE, ORTHO-	00095-49-8			----		620.0		T							
CHLORPYRIFOS	02921-88-2			----		2.4E-01		T							
CHROMATE	13907-45-4	Cr	18540-29-9	----		4.5E-05		H	H	U	H		R	Q	
CHROMIC (VI) ACID	07738-94-5	Cr	18540-29-9	----		4.5E-05		H	H	U	H	A	R	Q	
CHROMIC ACID	11115-74-5	Cr	18540-29-9	----		4.5E-05		H	H	U	H		R	Q	
CHROMIC ACID, DIAMMONIUM	07789-09-5	Cr2	18540-29-9	----		4.8E-05		H	H	U	H		R	Q	
CHROMIC ACID, DILITHIUM	14307-35-8	Cr	18540-29-9	----		5.1E-05		H	H	U	H		R	Q	
CHROMIC ACID, DISODIUM	07789-12-0	Cr2	18540-29-9	----		5.8E-05		H	H	U	H		R	Q	
CHROMIC ACID, Na SALT	07775-11-3	Cr	18540-29-9	----		6.3E-05		H	H	U	H		R	Q	
CHROMIUM	07440-47-3	Cr	NY075-00-0	----		45.0		s	H		H		R		
CHROMIUM (III)	16065-83-1	Cr	NY075-00-0	----		45.0		s	M		H		R		
CHROMIUM (III) CHLORIDE	10025-73-7	Cr	NY075-00-0	----		45.0		s		H		R	Q		
CHROMIUM (III) CHLORIDE HEXAHYDRATE	10060-12-5	Cr	NY075-00-0	----		45.0		s		H		R	Q		
CHROMIUM (III) OXIDE	01308-38-9	Cr2	NY075-00-0	----		45.0		s	M		H		R	Q	
CHROMIUM (VI)	18540-29-9	Cr		----		2.0E-05		H	H	U	H	A			
CHROMIUM (VI) OXIDE	01333-82-0	Cr	18540-29-9	----		3.8E-05		H	H	U	H		R	Q	
CHROMIUM DIOXIDE	12018-01-8	Cr	NY075-00-0	----		45.0		s		H		R	Q		
CHROMIUM HYDROXIDE	01308-14-1	Cr	NY075-00-0	----		45.0		s		H		R	Q		
CHROMIUM K SULFATE	10141-00-1	Cr	NY075-00-0	----		45.0		s		H		R	Q		
CHROMIUM OXIDE PYRIDINE	20492-50-6	Cr	18540-29-9	----		9.9E-05		H		U	H		R	Q	
CHROMIUM OXYCHLORIDE	14977-61-8	Cr	18540-29-9	----		6.0E-05		H	H	U	H		R	Q	
CHROMIUM SULFATE	10101-53-8	Cr2	NY075-00-0	----		45.0		s		H		R	Q		
CHROMYL FLUORIDE	07788-96-7	Cr	18540-29-9	----		4.7E-05		H	H	U	H		R	Q	
CHRYSENE	00218-01-9		00050-32-8	----		1.0E-01		A	H	U	H		R		
CHRYSOTILE	12001-29-5		01332-21-4	----		1.6E-05		A	H	U	H		R		
CITRAL	05392-40-5			----		74.0		T							
CLOPIDOL	02971-90-6			----		7.0		T							
COBALT	07440-48-4	Co		----		1.0E-03		D	M		H				
COBALT ALUMINATE	01345-16-0	Co	07440-48-4	----		3.0E-03		D		H		R	Q		
COBALT CARBONATE	00513-79-1	Co	07440-48-4	----		2.1E-03		D		H		R	Q		
COBALT CARBONYL	10210-68-1	Co2	07440-48-4	----		2.9E-03		D		H		R	Q		
COBALT CHLORINE	07646-79-9	Co	07440-48-4	----		2.2E-03		D		H		R	Q		
COBALT COMPLEX	53108-50-2	Co	07440-48-4	----		4.2E-03		D	M		H		R	Q	
COBALT HYDROCARBONYL	16842-03-8	Co	07440-48-4	----		2.9E-03		D		H		R	Q		
COBALT NAPHTHENATE	61789-51-3	Co	07440-48-4	----		6.8E-03		D	M		H		R		
COBALT OXIDE	01307-96-6	Co	07440-48-4	----		1.3E-03		D	M		H		R	Q	
COBALT SULFATE	10124-43-3	Co	07440-48-4	----		2.7E-03		D		H		R	Q		
COBALT SULFIDE	01317-42-6	Co	07440-48-4	----		1.5E-03		D	M		H		R	Q	
COBALT TRIFLUORIDE	10026-18-3	Co	07440-48-4	----		2.0E-03		D		H		R	Q		
COBALTOUS SULFAMATE	14017-41-5	Co	07440-48-4	----		4.3E-03		D		H		R	Q		
COKE OVEN EMISSIONS	08007-45-2			----		1.6E-03		E	H	U	H				
COPPER	07440-50-8	Cu		100.0	D	4.8E-01		T	M						
COPPER CYANIDE	00544-92-3	CN	00057-12-5	380.0	s	3.5		D	H		H		R	R	Q
COUMAPHOS	00056-72-4			----		1.2E-01		T							
CRESOL	01319-77-3			----		180.0		H	M		H				
CRESOL, META-	00108-39-4			----		180.0		H	M		H				
CRESOL, ORTHO-	00095-48-7			----		180.0		H	M		H				
CRESOL, PARA-	00106-44-5			----		18.0		H	M		H				

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
CROCIDOLITE	12001-28-4		01332-21-4	----		1.6E-05		A	H	U	H	A	R		
CROTONALDEHYDE	04170-30-3			86.0	Y	----		X							
CROTONALDEHYDE, TRANS-CRUFORMATE	00123-73-9		04170-30-3	86.0	A	----		X						R	
CUMENE	00098-82-8			----		400.0		E		H					
CYANAMIDE	00420-04-2			----		4.8		T	M						
CYANIC ACID	00420-05-3	CN	00057-12-5	380.0	s	3.5		D	H	H		R	R	Q	Q
CYANIDE	00057-12-5	CN		380.0	s	3.5		D	H	H				R	
CYANOGEN	00460-19-5		00074-90-8	340.0	D	8.0E-01		A	H				R	R	
CYANOGEN BROMIDE	00506-68-3		00074-90-8	130.0	Y	8.0E-01		A	H	H				R	
CYANOGEN CHLORIDE	00506-77-4		00074-90-8	75.0	Y	8.0E-01		A	H	H				R	
CYCLIC DEXADIENE	00080-56-8			----		270.0		T							
CYCLOHEXANE	00110-82-7			----		6000.0		E	L						
CYCLOHEXANEBUTANOIC ACID, Cd SALT	55700-14-6	Cd	07440-43-9	----		9.6E-04		D	H	U	H			R	Q
CYCLOHEXANOL	00108-93-0			----		490.0		T							
CYCLOHEXANONE	00108-94-1			20000.0	Z	190.0		T	M						
CYCLOHEXENE MIXTURE	00110-83-8			----		2400.0		T							
CYCLOHEXYLAMINE	00108-91-8			----		98.0		T							
CYCLONITE	00121-82-4			----		1.2		T							
CYCLOPENTADIENE, 1,3-	00542-92-7			----		480.0		T	M						
CYCLOPENTANE	00287-92-3			----		4100.0		T							
CYHEXATIN	13121-70-5			----		12.0		T							
CYPERMETHRIN	52315-07-8		08003-34-7	----		12.0		A	M					R	
DDE	00072-55-9		00050-29-3	----		1.0E-02		A	H	U	H			R	
DDT	00050-29-3			----		1.0E-02		E	H	U					
DECABORANE	17702-41-9			75.0	Z	6.0E-01		T							
DECAMETHYLCYCLOPENTASILOXANE	00541-02-6			----		150.0		D	L						
DECANE	00124-18-5		00110-54-3	----		700.0		A	M					R	
DEMETON	08065-48-3			----		1.2E-01		T							
DEMETON-S-METHYL	00919-86-8			----		1.2E-01		T							
DIACETONE ALCOHOL	00123-42-2			----		570.0		T	M						
DIACETYL	00431-03-8			7.0	Z	8.4E-02		T	M						
DIALKYL PHTHALATES	39393-37-8		00084-66-2	----		12.0		A	M					R	
DIAZINON	00333-41-5			----		2.4E-02		T							
DIAZOMETHANE	00334-88-3			----		8.1E-01		T	M		H	B			
DIBENZ(A,H)ANTHRACENENE	00053-70-3		00050-32-8	----		1.0E-03		A	H	U	H			R	
DIBORANE	19287-45-7			----		2.6E-01		T							
DIBROMOCHLOROPROPANE	00096-12-8			----		2.0E-01		E		H					
DIBROMOETHANE, 1, 2	00106-93-4			----		1.7E-03		E	H	U	H				
DIBUTYL CARBITOL	00112-73-2		00110-80-5	370.0	A	200.0		A	M	H			R	R	
DIBUTYL PHENYL PHOSPHATE	02528-36-1			----		8.3		T							
DIBUTYL PHOSPHATE	00107-66-4			----		12.0		T							
DIBUTYL PHTHALATE	00084-74-2			----		12.0		T		H					
DIBUTYLAMINOETOL, 2-N-	00102-81-8			----		8.3		T							
DICHLORDIMEHYDANTOIN	00118-52-5			40.0	Z	4.8E-01		T							
DICHLORO-2-BUTENE, 1,4-	00764-41-0			----		6.0E-02		T			B				
DICHLOROACETIC ACID	00079-43-6			----		6.3		T							
DICHLOROACETYLENE	07572-29-4			39.0	Y	----		X							
DICHLOROANILINE, 2,5-	00095-82-9		00062-53-3	----		6.3E-01		A	M	U				R	
DICHLOROBENZENE, META-	00541-73-1			----		10.0		H	M						
DICHLOROBENZENE, ORTHO-	00095-50-1			30000.0	Z	200.0		H	M						
DICHLOROBENZENE, PARA-	00106-46-7			----		9.1E-02		D	M	U	H				
DICHLOROBENZIDINE, 3,3'-	00091-94-1			----		2.9E-03		D	H	H					
DICHLORODIFLUOROMETHANE	00075-71-8			----		12000.0		T							
DICHLOROETHANE, 1,1-	00075-34-3			----		6.3E-01		D	L	U	H				
DICHLOROETHANE, 1,2-	00107-06-2			----		3.8E-02		E	H	U	H				
DICHLOROETHYL ETHER	00111-44-4			5800.0	Z	3.0E-03		E		U	H				

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
DICHLOROETHYLENE, 1,2-	00540-59-0			----		63.0		D	M						
DICHLOROETHYLENE, CIS-	00156-59-2			----		63.0		D	M						
DICHLOROETHYLENE, TRANS-	00156-60-5			----		63.0		D	M						
DICHLOROFUOROMETHANE	00075-43-4			----		100.0		T							
DICHLOROMETHANE	00075-09-2			14000.0	D	46.0		E	M	U	H				
DICHLORONITROETHANE	00594-72-9			----		29.0		T							
DICHLOROPROPANOL, 1,3-	00096-23-1		00106-89-8	1300.0	A	8.3E-01		A		U				R	R
DICHLOROPROPENE, 1,3-	00542-75-6			----		2.5E-01		E	H	U	H				
DICHLOROPROPIONIC ACID	00075-99-0			----		12.0		T							
DICHLOROTETRAFLUORETHANE	00076-14-2			----		17000.0		T							
DICHLORPHENOXY, 2,4-	00094-75-7			----		24.0		T			H				
DICHLORVOS	00062-73-7			----		5.0E-01		E	M		H				
DICHROMIC ACID	13530-68-2	Cr2	18540-29-9	----		4.2E-05		H	H	U	H			R	Q
DICROTOPHOS	00141-66-2			----		1.2E-01		T							
DICYCLOPENTADIENE	00077-73-6			----		64.0		T							
DICYCLOPENTADIENYL IRON	00102-54-5			----		24.0		T							
DIELDRIN	00060-57-1			----		2.2E-04		E	H	U					
DIETHANOLAMINE	00111-42-2			----		3.0		D			H				
DIETHYL ANILINE , N, N-	00091-66-7		00062-53-4	----		6.3E-01		A	M	U				R	
DIETHYL CARBITOL	00112-36-7		00110-80-5	370.0	A	200.0		A	M		H			R	R
DIETHYL KETONE	00096-22-0			110000.0	Z	1700.0		T							
DIETHYL PHTHALATE	00084-66-2			----		12.0		T	M						
DIETHYL SULFATE	00064-67-5		00077-78-1	----		1.2		A	H		H			R	
DIETHYLAMINE	00109-89-7			4500.0	Z	36.0		T							
DIETHYLAMINOETHANOL	00100-37-8			----		23.0		T							
DIETHYLENE GLYCOL	00111-46-6		00107-98-2	36850.0	A	2000.0		A	M					R	R
DIETHYLENE GLYCOL ADIPATE	58984-19-3		00110-80-5	370.0	A	200.0		A			H			R	R
DIETHYLENE GLYCOL DIETHYL	00111-96-6		00109-86-4	93.0	A	20.0		A	M		H			R	R
DIETHYLENE GLYCOL METHYL	00629-38-9		00110-80-5	370.0	A	200.0		A	M		H			R	R
DIETHYLENE GLYCOL MONOETHYL ETHER	00111-90-0		00110-80-5	370.0	A	200.0		A	M		H			R	R
DIETHYLENE TRIAMINE	00111-40-0			----		10.0		T	M						
DIETHYLHYDROXYLAMINE	03710-84-7			----		17.4		T							
DIFLUORDIBROMOMETHANE	00075-61-6			----		2000.0		T							
DIFLUOROETHANE	00075-37-6			----		40000.0		E	L						
DIGLYCIDYL ETHER	02238-07-5			----		1.2E-01		T							
DIISOBUTYL KETONE	00108-83-8			----		350.0		T							
DIISODECYL PHTHALATE	26761-40-0		00084-66-2	----		12.0		A	M					R	
DIISOOCTYL PHTHALATE	27554-26-3		00084-66-2	----		12.0		A	M					R	
DIISOPROPYLAMINE	00108-18-9			----		50.0		T							
DIMETHYL DISULFIDE	00624-92-0			14.0	A	4.8		T	M					R	
DIMETHYL ETHER	00115-10-6		00060-29-7	150000.0	A	29000.0		A	L					R	R
DIMETHYL HYDRAZINE	00057-14-7			----		6.0E-02		T	M		H				
DIMETHYL PHTHALATE	00131-11-3			----		12.0		T			H				
DIMETHYL SULFATE	00077-78-1			----		1.2		T	H		H				
DIMETHYL SULFIDE	00075-18-3			14.0	A	60.0		T	M					R	
DIMETHYLACETAMIDE	00127-19-5			----		85.0		T				B			
DIMETHYLAMINE	00124-40-3			2800.0	Z	22.0		T							
DIMETHYLAMINO ETHANOL, 2-	00108-01-0			----		26.0		D	M						
DIMETHYLAMINOAZOBENZENE	00060-11-7			----		7.7E-04		D	M	U	H				
DIMETHYLANILINE	00121-69-7			5000.0	Z	60.0		T	M		H				
DIMETHYLBENZIDINE, 3,3'-	00119-93-7		00062-53-3	----		6.3E-01		A	M	U	H			R	
DIMETHYLBUTANE, 2,2-	00075-83-2			350000.0	Z	4200.0		T	M						
DIMETHYLBUTANE, 2,3-	00079-29-8			350000.0	Z	4200.0		T							
DIMETHYLCARBAMYL CHLORIDE	00079-44-7			----		5.2E-02		T			H	B			
DIMETHYLDICHLOROSILANE	00075-78-5		07647-01-0	2100.0	A	20.0		A	M					R	R
DIMETHYLETHOXSILANE	14857-34-2			----		5.0		T							
DIMETHYLFORMAMIDE	00068-12-2			----		30.0		E	M		H	B			



CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
DIMETHYLPROPANE	00463-82-1			----		70250.0		T							
DINITROBENZENE, META-	00099-65-0			----		2.4		T	M						
DINITROBENZENE, ORTHO-	00528-29-0			----		2.4		T							
DINITROBENZENE, PARA-	00100-25-4			----		2.4		T							
DINITRO-O-CRESOL	00534-52-1			----		4.8E-01		T		H					
DINITRO-O-TOLUAMIDE	00148-01-6			----		2.4		T							
DINITROPHENOL, 2,4-	00051-28-5			----		2.0E-05		*	H	H					
DINITROTOLUENE	25321-14-6		00121-14-2	----		1.1E-02		A	H	U	H			R	
DINITROTOLUENE, 2,4-	00121-14-2			----		1.1E-02		D	H	U	H				
DIOCTYL ADIPATE	00103-23-1		00084-66-2	----		12.0		A	M					R	
DIOCTYL PHTHALATE	00117-81-7			----		4.2E-01		D	M	U	H				
DIOXANE, 1,4-	00123-91-1			3000.0	D	2.0E-01		E	M	U	H				
DIOXATHION	00078-34-2			----		2.4E-01		T							
DIOXOLANE	00646-06-0			----		1500.0		T	L						
DIPHENYL MERCURY	00587-85-9			----		4.2E-02		T	H	H					Q
DIPHENYLAMINE	00122-39-4			----		24.0		T							
DIPHENYLHYDRAZINE	00122-66-7			----		4.5E-03		E	H	U	H			R	
DIPHENYLMETHANE DIISOCYANATE	26447-40-5		00101-68-8	12.0	A	6.0E-01		A	H					R	R
DIPROPYL KETONE	00123-19-3			----		550.0		T							
DIPROPYLENE GLYCOL	25265-71-8		00107-21-1	1000.0	A	400.0		A	L					R	R
DIPROPYLENE GLYCOL METHYL ETHER	34590-94-8			91000.0	Z	1400.0		T							
DIQUAT	02764-72-9			----		2.4E-01		T							
DIQUAT DIBROMIDE	00085-00-7			----		2.4E-01		T							
DIQUAT DIBROMIDE MONOHYDRATE	06385-62-2			----		2.4E-01		T							
DISTILLATE HEAVY PARAFFINIC	64742-65-0			----		3200.0		D	M						
DISTILLATE HYDRO LIGHT NAPHTHENIC	64742-53-6			----		900.0		D	M						
DISTILLATE HYDROTREATED LIGHT	64742-47-8			----		900.0		D	M						
DISTILLATE HYDROTREATED MIDDLE	64742-46-7			----		900.0		D	M						
DISULFIRAM	00097-77-8			----		4.8		T							
DISULFOTON	00298-04-4			----		1.2E-01		T							
DI-TERT-BUTYL-P-CRESOL, 2,6-	00128-37-0			----		48.0		T	L						
DI-TERT-BUTYLPHENOL, 2,6-	00128-39-2		00108-95-2	5800.0	A	20.0		A						R	
DIURON	00330-54-1			----		24.0		T							
DIVINYL BENZENE, 1,3-	00108-57-6		01321-74-0	----		130.0		A						R	
DIVINYL BENZENE, MIX	01321-74-0			----		130.0		T							
DMAEE	03033-62-3			98.0	Z	7.9E-01		T							
DODECYL MERCAPTAN	00112-55-0			----		1.9		T							
ENDOSULFAN	00115-29-7			----		2.3		H							
ENDRIN	00072-20-8			----		1.0		H							
ENFLURANE	13838-16-9			----		1300.0		T							
EPICHLOROHYDRIN	00106-89-8			1300.0	D	8.3E-01		E	M	U	H				
EPN	02104-64-5			----		2.4E-01		T							
EPOXYBUTANE, 1,2-	00106-88-7			3000.0	D	20.0		E	M	H					
ETHANOL	00064-17-5			----		45000.0		T	L						
ETHANOL, 2-(PHENYLMETHOXY)-	00622-08-2		00110-80-5	370.0	A	200.0		A		H				R	R
ETHANOL, 2-PHENOXY-	00122-99-6		00110-80-5	370.0	A	200.0		A	M	H				R	R
ETHANOLAMINE	00141-43-5			1500.0	Z	18.0		T	M						
ETHION	00563-12-2			----		1.2E-01		T							
ETHOXYETHYL ACETATE, 2-	00111-15-9			140.0	D	64.0		T	M	H					
ETHOXYLATED ALCOHOLS	74432-13-6		00110-80-5	370.0	A	200.0		A	M	H				R	R
ETHOXYPROPANOL, 3-	00111-35-3		00107-98-2	36850.0	A	2000.0		A	M					R	R
ETHYL 3-ETHOXYPROPIONATE	00763-69-9		00111-15-9	140.0	A	64.0		A	M	H				R	R
ETHYL ACETATE	00141-78-6			----		3400.0		T	M						
ETHYL ACRYLATE	00140-88-5			6100.0	Z	48.0		T		H					
ETHYL AMYL KETONE	00106-68-3		00541-85-5	----		120.0		A						R	
ETHYL BROMIDE	00074-96-4			----		52.0		T							
ETHYL BUTYL KETONE	00106-35-4			35000.0	Z	560.0		T							

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
ETHYL CHLORIDE	00075-00-3			----		10000.0		E	L	H					
ETHYL CYANOACRYLATE	07085-85-0			515.0	Z	2.4		T							
ETHYL ETHER	00060-29-7			150000.0	Z	29000.0		T	L						
ETHYL FORMATE	00109-94-4			30300.0	Z	----		X							
ETHYL HEXANOIC ACID, 2-	00149-57-5			----		12.0		T							
ETHYL ISOCYANATE	00109-90-0			17.0	Z	1.4E-01		T	H						
ETHYL MERCAPTAN	00075-08-1			----		3.1		T	M						
ETHYL MERCURIC PHOSPATE	02235-25-8			----		3.9E-02		T	H	H				Q	
ETHYL SILICATE	00078-10-4			----		200.0		T							
ETHYL TERT-BUTYL ETHER	00637-92-3			----		250.0		T							
ETHYLAMINE	00075-04-7			2800.0	Z	22.0		T							
ETHYLANILINE, N-	00103-69-5		00062-53-3	----		6.3E-01		A	M	U				R	
ETHYLBENZENE	00100-41-4			----		1000.0		E	M	H					
ETHYLENE	00074-85-1			----		550.0		T							
ETHYLENE CHLOROHYDRIN	00107-07-3			330.0	Y	----		X							
ETHYLENE DIAMINE	00107-15-3			----		60.0		T	M						
ETHYLENE GLYCOL	00107-21-1			1000.0	Z	400.0		D		H					
ETHYLENE GLYCOL DIBUTYL ETHER	00112-48-1		00110-80-5	370.0	A	200.0		A	M	H				R	R
ETHYLENE GLYCOL DIETHYL ETHER	00629-14-1		00109-86-4	93.0	A	20.0		A	M	H				R	R
ETHYLENE GLYCOL DINITRATE	00628-96-6			----		7.4E-01		T							
ETHYLENE GLYCOL MONOPROPYL ETHER	02807-30-9		00110-80-5	370.0	A	200.0		A	M	H				R	R
ETHYLENE GLYCOL ALLYL ETHER	00111-45-5		00110-80-5	370.0	A	200.0		A	M	H				R	R
ETHYLENE OXIDE	00075-21-8			18.0	D	2.0E-04		E	H	U	H	B			
ETHYLENE THIOUREA	00096-45-7			----		7.7E-02		D	H	U	H				
ETHYLENEIMINE	00151-56-4			17.0	Z	2.1E-01		T	H	H					
ETHYLHEXYL ACRYLATE	00103-11-7		00096-33-3	----		17.0		A	M					R	
ETHYLHEXYL METHACRYLATE, 2-	00688-84-6		00096-33-3	----		17.0		A	M					R	
ETHYLIDENE NORBORNENE	16219-75-3			1960.0	Z	2.3		T							
ETHYLMORPHOLINE, N-	00100-74-3			----		57.0		T							
FENAMIPHOS	22224-92-6			----		1.2E-01		T							
FENSULFOTHION	00115-90-2			----		2.4E-02		T							
FENTHION	00055-38-9			----		1.2E-01		T							
FERBAM	14484-64-1			----		12.0		T							
FERROVANADIUM DUST	12604-58-9			300.0	Z	2.4		T							
FLUDIOXONIL	131341-86-1			----		2.4		T				B			
FLUORIDE NY STANDARD	*FLUORIDE*	F		5.3	s	6.7E-02		s							
FLUORINE	07782-41-4			5.3	s	6.7E-02		s	M						
FOLPET	00133-07-3			----		2.4		T				B			
FONOFOS	00944-22-9			----		2.4E-01		T							
FORMALDEHYDE	00050-00-0			30.0	H	6.0E-02		H	H	U	H	A			
FORMAMIDE	00075-12-7			----		43.0		T	M						
FORMIC ACID	00064-18-6			1900.0	Z	22.0		T	M						
FREON 13	00075-72-9		00071-55-6	9000.0	A	5000.0		A	L					R	R
FURFURAL	00098-01-1			----		1.9		T				B			
FURFURYL ALCOHOL	00098-00-0			----		1.9		T				B			
GALLIUM ARSENIDE	01303-00-0	As	07440-38-2	----		4.4E-04		E	H	U	H			R	Q
GERMANIUM TETRAHYDRIDIDE	07782-65-2			----		1.5		T							
GLUTARALDEHYDE	00111-30-8			20.0	Y	8.0E-02		D							
GLYCEROL PROPYLENE GLYCOL TRIETHER	25791-96-2		00107-21-1	1000.0	A	400.0		A	M					R	R
GLYCIDOL	00556-52-5			----		15.0		T							
GLYCOL MONOETHYL ETHER	00110-80-5			370.0	D	200.0		E	M	H					
GLYCOLONITRILE	00107-16-4		00075-05-8	----		60.0		A						R	
GLYOXAL	00107-22-2			----		2.4E-01		T							
GOLD (1+) CYANIDE	00506-65-0	CN	00057-12-5	380.0	s	3.5		D	H	H				R	R
GOLD CYANIDE	37187-64-7	CN	00057-12-5	380.0	s	3.5		D	H	H				R	R
GOLD POTASSIUM CYANIDE	00554-07-4	C2N	00057-12-5	380.0	s	3.5		D	H	H				R	R
GRAPHITE	07782-42-5			----		4.8		T							

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
GYPSUM	13397-24-5			----		24.0		T							
HAFNIUM	07440-58-6			----		1.2		T							
HALOTHANE	00151-67-7			----		960.0		T							
HDI BIURET	04035-89-6			4.5	D	4.0E-01		D	H						
HDI CYANURATE	03779-63-3			4.5	D	4.0E-01		D	H						
HDI HOMOPOLYMER	28182-81-2			4.5	D	4.0E-01		D	H						
HEPTACHLOR	00076-44-8			----		7.7E-04		E	H	U	H				
HEPTACHLOR EPOXIDE	01024-57-3			----		3.8E-04		E	H	U					
HEPTANE, N-	00142-82-5			210000.0	Z	3900.0		T	M						
HEPTYL ACETATE	00112-06-1		00108-84-9	----		7000.0		A	L				R		
HEXACHLOROBENZENE	00118-74-1			----		2.2E-03		E	H	U	H				
HEXACHLOROBUTADIENE	00087-68-3			----		4.5E-02		E	M	U	H				
HEXACHLOROCYCLOHEXANE (ISOMERS)	00608-73-1			----		2.0E-03		E	U						
HEXACHLOROCYCLOHEXANE, ALPHA-	00319-84-6			----		5.6E-04		E	M	U	H				
HEXACHLOROCYCLOHEXANE, BETA-	00319-85-7			----		1.9E-03		E	M	U	H				
HEXACHLOROCYCLOHEXANE, GAMMA-	00058-89-9			----		5.0E-03		H	M		H				
HEXACHLOROCYCLOPENTADIENE	00077-47-4			----		2.0E-01		E	M		H				
HEXACHLOROETHANE	00067-72-1			----		23.0		T	H		H				
HEXACHLORONAPHTHALENE	01335-87-1			----		4.8E-01		T	M						
HEXACHLOROPHENE	00070-30-4			----		1.1		D	H						
HEXAFLUROACETONE	00684-16-2			----		1.6		T							
HEXAFLUROPROPYLENE	00116-15-4			----		1.4		T							
HEXAHYDROPHTHALIC ANHYDIDE	00085-42-7			5.0E-01	Y	----		X							
HEXAMETHYLDISILOXANE	00107-46-0		00556-67-2	----		360.0		A	M				R		
HEXAMETHYLENE DIISOCYANATE (HDI)	00822-06-0			3.0E-01	D	1.0E-02		E	H		H				
HEXANE	00110-54-3			----		700.0		E	M		H				
HEXANEDIAMINE, 1,6-	00124-09-4			----		5.5		T	M						
HEXANOIC ACID, Co	00136-52-7	Co	07440-48-4	----		5.1E-03		D		H		R	Q		
HEXENE, 1-	00592-41-6			----		410.0		T							
HEXYL ACETATE, SEC-	00108-84-9			----		7000.0		T	L						
HEXYL CARBITOL	00112-59-4		00110-80-5	370.0	A	200.0		A	M		H		R	R	
HEXYLENE GLYCOL	00107-41-5			1000.0	Z	290.0		T	L						
HYDRAZINE	00302-01-2			----		2.0E-04		E	H	U	H				
HYDROGEN BROMIDE	10035-10-6			680.0	Y	----		X	L						
HYDROGEN CHLORIDE	07647-01-0			2100.0	D	20.0		E	M		H				
HYDROGEN CYANIDE	00074-90-8			340.0	D	8.0E-01		E	H		H				
HYDROGEN FLUORIDE	07664-39-3	F	*FLUORIDE*	5.6	s	7.1E-02		s	M		H		R	R	Q
HYDROGEN PEROXIDE	07722-84-1			----		3.3		T							
HYDROGEN SELENIDE	07783-07-5			5.0	D	----		X			H				
HYDROGEN SULFIDE	07783-06-4			----		2.0		E	M						
HYDROQUINONE	00123-31-9			----		2.4		T	M		H				
HYDROXYPROPYL ACRYLATE	00999-61-1			----		6.7		T							
INDENE	00095-13-6			----		57.0		T							
INDENO(1,2,3-CD)PYRENE	00193-39-5		00050-32-8	----		1.0E-02		A	H	U	H		R		
INDIUM	07440-74-6			----		2.4E-01		T	H						
INDIUM, TRIETHYL-	00923-34-2			----		4.2E-01		T	H					Q	
IODINE	07553-56-2			100.0	Y	2.4		T	L						
IODOFORM	00075-47-8			----		24.0		T							
IRON CHLORIDE	07705-08-0			----		2.4		T							
IRON OXIDE	01309-37-1			----		12.0		T							
IRON PENTACARBONYL	13463-40-6			160.0	Z	1.9		T							
ISOAMYL ACETATE	00123-92-2			53000.0	Z	6300.0		T	L						
ISOAMYL ALCOHOL	00123-51-3			45000.0	Z	8600.0		T	L						
ISOBUTANOLAMINE	00124-68-5		00141-43-5	1500.0	A	18.0		A	M				R	R	
ISOBUTYL ACETATE	00110-19-0			71300.0	Z	565.0		T	L						
ISOBUTYL ALCOHOL	00078-83-1			----		360.0		T							
ISOBUTYLENE	00115-11-7			----		1400.0		T	M						

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
ISOBUTYRALDEHYDE	00078-84-2		04170-30-3	30.0	A	----		X	M						R
ISOOCTANE	00540-84-1			----		3300.0		T	M	H					
ISOOCTYL ALCOHOL	26952-21-6			----		630.0		T							
ISOPENTANE	00078-78-4			----		70250.0		T	L						
ISOPHORONE	00078-59-1			2800.0	Y	----		X	M	H					
ISOPHORONE DIISOCYANATE	04098-71-9			2.0	A	1.1E-01		T	H						R
ISOPROPOXYETHANOL, 2-	00109-59-1			----		250.0		T							
ISOPROPYL ACETATE	00108-21-4			62700.0	Z	995.0		T							
ISOPROPYL ALCOHOL	00067-63-0			98000.0	Z	7000.0		D	M						
ISOPROPYL ETHER	00108-20-3			130000.0	Z	2500.0		T							
ISOPROPYL GLYCIDYL ETHER	04016-14-2			36000.0	Z	570.0		T							
ISOPROPYLAMINE	00075-31-0			2400.0	Z	29.0		T	M						
ISOPROPYLANILINE, N-	00768-52-5			----		26.0		T							
KAOLIN (CLAY)	01332-58-7			----		4.8		T							
KEROSENE	08008-20-6			----		480.0		T							
KEROSENE HYDRODESULFURIZED	64742-81-0			----		900.0		D	M						
KETENE	00463-51-4			260.0	Z	2.0		T	M						
LEAD	07439-92-1	Pb		----		3.8E-02		s	H	H					
LEAD (2+) CARBONATE	25510-11-6	Pb	07439-92-1	----		4.9E-02		s	H	H	R				Q
LEAD (II) ARSENATE (1:1)	07784-40-9	As	07440-38-2	----		1.1E-03		E	H	U	H	R			Q
LEAD (II) ARSENATE (3:2)	03687-31-8	As2	07440-38-2	----		1.4E-03		E	H	U	H	R			Q
LEAD (II) CARBONATE	00598-63-0	Pb	07439-92-1	----		4.9E-02		s	H	H	R				Q
LEAD ACETATE	01335-32-6	Pb3	07439-92-1	----		4.9E-02		s	H	H	R				Q
LEAD ARSENATE	07645-25-2	As	07440-38-2	----		1.1E-03		E	H	U	H	R			Q
LEAD CARBONATE HYDROXIDE	01319-46-6	Pb3	07439-92-1	----		4.7E-02		s	H	H	R				Q
LEAD CHLORIDE	07758-95-4	Pb	07439-92-1	----		5.1E-02		s	H	H	R				Q
LEAD CHROMATE	07758-97-6	Cr	18540-29-9	5.0E-02	Z	1.3E-04		H	H	U	H	A	R		Q
LEAD CHROMATE OXIDE	18454-12-1	Cr	18540-29-9	----		2.1E-04		H	H	U	H	R			Q
LEAD DIOXIDE	01309-60-0	Pb	07439-92-1	----		4.4E-02		s	H	H	R				Q
LEAD FLUOROBORATE	13814-96-5	Pb	07439-92-1	----		7.0E-02		s	H	H	R				Q
LEAD MOLYBDATE	10190-55-3	Pb	07439-92-1	----		6.7E-02		s	H	H	R				Q
LEAD MONOXIDE	01317-36-8	Pb	07439-92-1	----		4.1E-02		s	H	H	R				Q
LEAD NAPHTHENATE	61790-14-5	Pb	07439-92-1	----		8.5E-02		s	H	H	R				Q
LEAD OXIDE SULFATE	12202-17-4	Pb	07439-92-1	----		4.7E-02		s	H	H	R				Q
LEAD PHOSPHATE SALT	07446-27-7	Pb3	07439-92-1	----		5.0E-02		s	H	H	R				Q
LEAD SILICATE	11120-22-2	Pb	07439-92-1	----		5.2E-02		s	H	H	R				Q
LEAD STEARATE	07428-48-0	Pb	07439-92-1	----		9.0E-02		s	H	H	R				Q
LEAD STEARATE	56189-09-4	Pb2	07439-92-1	----		9.0E-02		s	H	H	R				Q
LEAD SULFATE	07446-14-2	Pb	07439-92-1	----		5.6E-02		s	H	H	R				Q
LEAD SULFOCHROMATE	01344-37-2	Cr	18540-29-9	----		2.0E-05		A	H	U	H	R			
LEAD TETRAOXIDE	01314-41-6	Pb3	07439-92-1	----		4.2E-02		s	H	H	R				Q
LEAD TITANATE ZIRCON	12626-81-2	Pb	07439-92-1	----		7.2E-02		s	H	H	R				Q
LEAD TITANIUM OXIDE	12060-00-3	Pb	07439-92-1	----		5.6E-02		s	H	H	R				Q
LEAD ZIRCONIUM OXIDE	12060-01-4	Pb	07439-92-1	----		6.4E-02		s	H	H	R				Q
LEAD, BENZENEDICARBOXYLATO, DIOX-	69011-06-9	Pb3	07439-92-1	----		5.0E-02		s	H	H	R				Q
LIGROINE	08032-32-4			----		900.0		D	M						
LITHIUM HYDRIDE	07580-67-8			5.0	Z	----		X							
MAGNESIUM OXIDE	01309-48-4			----		24.0		T							
MAGNESIUM STEARATE	00557-04-0			----		7.1		T							
MALATHION	00121-75-5			----		2.4		T	M						
MALEIC ANHYDRIDE	00108-31-6			----		7.0E-01		D	M	H					
MALONONITRILE	00109-77-3		00075-05-8	----		60.0		A							R
MANGANESE	07439-96-5	Mn		----		5.0E-02		E	H	H					
MANGANESE (III) OXIDE	01317-34-6	Mn2	07439-96-5	----		7.2E-02		E		H	R				Q
MANGANESE CYCLOPENTADIENE	12079-65-1			----		8.8E-01		T		H					Q
MANGANESE DIOXIDE	01313-13-9	Mn	07439-96-5	----		7.9E-02		E		H	R				Q
MANGANESE NAPHTHENATE	01336-93-2	Mn	07439-96-5	----		3.6E-01		E		H	R				

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
MANGANESE NITRATE	10377-66-9	Mn	07439-96-5	----		1.6E-01	E		H		R		Q		
MANGANESE OXIDE	01344-43-0	Mn	07439-96-5	----		6.5E-02	E		H		R		Q		
MANGANESE PHOSPHATE	10124-54-6	Mn	07439-96-5	----		1.4E-01	E		H		R		Q		
MANGANESE ROSINATE	09008-34-8		07439-96-5	----		5.0E-02	A		H		R				
MANGANESE SULFATE	07785-87-7	Mn	07439-96-5	----		1.4E-01	E		H		R		Q		
MANGANESE TETROXIDE	01317-35-7	Mn3	07439-96-5	----		6.9E-02	E		H		R		Q		
MELAMINE FORMALDEHYDE	68891-01-0		NY075-00-0	380.0	s	45.0	s	M	U						
MERCURIC CHLORIDE	07487-94-7	Hg	07439-97-6	6.0E-01	D	4.1E-01	E	H	H		R	R	Q	Q	
MERCURIC NITRATE	10045-94-0	Hg2	07439-97-6	6.0E-01	D	4.9E-01	E	H	H		R	R	Q	Q	
MERCURIC OXIDE	21908-53-2	Hg	07439-97-6	6.0E-01	D	3.2E-01	E	H	H		R	R	Q	Q	
MERCURIC SULFATE	07783-35-9	Hg	07439-97-6	6.0E-01	D	4.5E-01	E	H	H		R	R	Q	Q	
MERCUROUS NITRATE	10415-75-5	Hg	07439-97-6	6.0E-01	D	3.9E-01	E	H	H		R	R	Q	Q	
MERCUROUS OXIDE	15829-53-5	Hg2	07439-97-6	6.0E-01	D	3.1E-01	E	H	H		R	R	Q	Q	
MERCURY	07439-97-6	Hg		6.0E-01	D	3.0E-01	E	H	H						
MERCURY IODINE	07774-29-0	Hg	07439-97-6	6.0E-01	D	6.8E-01	E	H	H		R	R	Q	Q	
MERCURY SULFIDE	01344-48-5	Hg	07439-97-6	6.0E-01	D	3.5E-01	E	H	H		R	R	Q	Q	
MERCURY, (NEODECANOATO), PHENYL-	26545-49-3			----		5.3E-02	T	H	H					Q	
MESITYL OXIDE	00141-79-7			10000.0	Z	140.0	T								
METHACRYLIC ACID	00079-41-4			----		170.0	T								
METHANESULFONIC ACID	00075-75-2		07664-93-9	120.0	A	1.0	A	L			R	R			
METHANOL	00067-56-1			33000.0	Z	4000.0	D	M	H						
METHOMYL	16752-77-5			----		5.0E-01	T								
METHOXYCHLOR	00072-43-5			----		24.0	T	H	H						
METHOXYETHANOL, 2-	00109-86-4			93.0	D	20.0	E	H	H						
METHOXYETHYL ACETATE, 2-	00110-49-6			----		1.2	T								
METHOXYPHENOL, 4-	00150-76-5			----		12.0	T								
METHOXYPROPYLACETATE	00108-65-6		00107-98-2	36850.0	A	2000.0	A	M			R	R			
METHYL ACETATE	00079-20-9			76000.0	Z	1400.0	T								
METHYL ACETYLENE	00074-99-7			----		3900.0	T	M							
METHYL ACETYLENE - PROPADIENE MIX	59355-75-8			210000.0	Z	3900.0	T								
METHYL ACRYLATE	00096-33-3			----		17.0	T	M							
METHYL AMYL KETONE	00110-43-0			----		550.0	T								
METHYL ANILINE	00100-61-8		00062-53-3	----		6.3E-01	A	M	U		R				
METHYL BROMIDE	00074-83-9			3900.0	D	5.0	E	M	H						
METHYL BUTYL KETONE	00591-78-6			4000.0	Z	30.0	E								
METHYL CARBITOL	00111-77-3		00109-86-4	93.0	A	20.0	A	M	H		R	R			
METHYL CHLOROFORM	00071-55-6			9000.0	E	5000.0	E	L	H						
METHYL CYANOACRYLATE	00137-05-3			460.0	Z	2.2	T		H						
METHYL DEMETON	08022-00-2			----		1.2E-01	T								
METHYL ETHYL KETONE	00078-93-3			13000.0	D	5000.0	E	M							
METHYL ETHYL KETONE PEROXIDE	01338-23-4			150.0	Y	----	X								
METHYL FORMATE	00107-31-3			37000.0	Z	590.0	T	M							
METHYL HEPTANONE	00541-85-5			----		120.0	T								
METHYL IODIDE	00074-88-4			----		29.0	T		H						
METHYL ISOAMYL KETONE	00110-12-3			23350.0	Z	560.0	T								
METHYL ISOBUTYL CARBINOL	00108-11-2			17000.0	Z	250.0	T								
METHYL ISOBUTYL KETONE	00108-10-1			31000.0	Z	3000.0	E	M	H						
METHYL ISOCYANATE	00624-83-9			----		1.1E-01	T	H	H						
METHYL ISOPROPYL KETONE	00563-80-4			----		168.0	T								
METHYL MERCAPTAN	00074-93-1			14.0	A	2.3	T	M					R		
METHYL METHACRYLATE	00080-62-6			41000.0	Z	700.0	E	M	H						
METHYL PARATHION	00298-00-0			----		4.8E-02	T								
METHYL PENTANE, 2-	00107-83-5			350000.0	Z	4200.0	T	M							
METHYL PROPYL KETONE	00107-87-9			53000.0	Z	----	X								
METHYL PYRROLIDONE	00872-50-4			----		100.0	D	M							
METHYL SILICATE	00681-84-5			----		14.0	T	M							
METHYL STYRENE	00098-83-9			----		115.0	T								

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
METHYL TERT-BUTYL ETHER	01634-04-4			----		3.8		H	M		H				
METHYL VINYL KETONE	00078-94-4			60.0	Y	----		X							
METHYLACRYLONITRILE	00126-98-7			----		6.4		T							
METHYLAL	00109-87-5			----		7400.0		T							
METHYLAMINE	00074-89-5			1900.0	Z	15.0		T	M						
METHYLBUTYL ACETATE, 2-	00624-41-9			53000.0	Z	630.0		T							
METHYLCYCLOHEXANE	00108-87-2			----		3800.0		T	M						
METHYLCYCLOHEXANOL	25639-42-3			----		560.0		T							
METHYLCYCLOHEXANON, ORTHO-	00583-60-8			34000.0	Z	550.0		T							
METHYLCYCLOPENTADIENE, 1,3-	26519-91-5		00542-92-7	----		480.0		A	M				R		
METHYLCYCLOPENTADIENYL Mn TRICAR	12108-13-3			----		1.5		T			H				Q
METHYLCYCLOPENTANE	00096-37-7		00110-54-3	----		700.0		A	L				R		
METHYLENE BIS(4-ISOCYANATOHEXANE)	05124-30-1			----		1.3E-01		T	H						
METHYLENE DIANILINE, 4,4'-	00101-77-9			----		2.2E-03		D	M	U	H				
METHYLENE DIPHENYL DIISOCYANATE (MDI)	00101-68-8			12.0	D	6.0E-01		E	H		H				
METHYLENEBIS(2-CHLOROANILINE), 4,4'-	00101-14-4			----		2.3E-03		D		U	H	B			
METHYLFURAN, 2-	00534-22-5		00107-02-8	2.5	A	3.5E-01		A	M				R	R	
METHYLMERCURY	22967-92-6			3.0	Z	2.4E-02		T	H		H				
METHYLNAPHTHALENE, 1-	00090-12-0			----		7.1		T							
METHYLNAPHTHALENE, 2-	00091-57-6			----		7.1		T							
METHYLPENTANE, 3-	00096-14-0			350000.0	Z	4200.0		T							
METHYLTRIMETHOXYSILOXANE	01185-55-3		07803-62-5	----		16.0		A	M				R		
METHYLVINYLCYCLOSILOXANE	02554-06-5		00556-67-2	----		360.0		A	M				R		
METTRIBUZIN	21087-64-9			----		12.0		T							
MEVINPHOS	07786-34-7			----		2.4E-02		T							
MICA	12001-26-2			----		7.1		T							
MIREX	02385-85-5			----		2.0E-05		*	H						
MOLYBDENUM	07439-98-7			----		1.2		T							
MONOCROTOPHOS	06923-22-4			----		1.2E-01		T							
MONOMETHYL HYDRAZINE	00060-34-4			----		4.5E-02		T	M		H				
MORPHOLINE	00110-91-8			----		170.0		T							
NALED (DIBROM)	00300-76-5			----		2.4E-01		T							
NAPHTHA	08030-30-6			----		900.0		D	M						
NAPHTHA HEAVY AROMATIC	64742-94-5			----		100.0		D	M						
NAPHTHA HYDROTREATED HEAVY	64742-48-9			----		900.0		D	M						
NAPHTHA LIGHT ALIPHATIC	64742-89-8			----		3200.0		D	M						
NAPHTHA LIGHT AROMATIC	64742-95-6			----		100.0		D	M						
NAPHTHA MEDIUM ALIPHATIC	64742-88-7			----		3200.0		D	M						
NAPHTHALENE	00091-20-3			7900.0	Z	3.0		E	M		H				
NAPHTHALENE DIISOCYANATE	03173-72-6		26471-62-5	2.0	A	7.0E-02		A	H				R	R	
NAPHTHYLAMINE, 2-	00091-59-8			----		2.0E-05		*	H			A			
NATHTHA HEAVY ALIPHATIC	64742-96-7			----		3200.0		D	M						
Ni, BIS(DIMETHYLAMINO)PHENYL-ETHEN	38465-55-3	Ni	07440-02-0	----		4.5E-02		E	H	U	H		R	R	Q
NICKEL	07440-02-0	Ni		2.0E-01	D	4.2E-03		E	H	U	H				
NICKEL (+2) SULFATE	07786-81-4	Ni	07440-02-0	2.0E-01	D	1.1E-02		E	H	U	H		R	Q	Q
NICKEL (II) OXIDE	01313-99-1	Ni	07440-02-0	2.0E-01	D	5.3E-03		E	H	U	H	A	R	Q	Q
NICKEL (III) OXIDE	01314-06-3	Ni2	07440-02-0	----		5.9E-03		E	H	U	H		R	Q	
NICKEL ACETATE	00373-02-4	Ni	07440-02-0	2.0E-01	D	1.3E-02		E	H	U	H		R	R	Q
NICKEL AZO YELLOW	51931-46-5	Ni	07440-02-0	----		4.7E-02		E	H	U	H		R	R	Q
NICKEL BORIDE	12007-02-2	Ni3	07440-02-0	----		4.5E-03		E	H	U	H		R	Q	
NICKEL BROMIDE	13462-88-9	Ni	07440-02-0	----		1.6E-02		E	H	U	H		R	Q	
NICKEL CARBIDE	12710-36-0	Ni3	07440-02-0	----		4.5E-03		E	H	U	H		R	Q	
NICKEL CARBONYL	13463-39-3	Ni	07440-02-0	----		1.2E-02		E	H	U	H		R	Q	
NICKEL CHLORIDE	07718-54-9	Ni	07440-02-0	2.0E-01	D	9.3E-03		E	H	U	H		R	Q	Q
NICKEL CYANIDE	00557-19-7	Ni	07440-02-0	2.0E-01	D	7.9E-03		E	H	U	H		R	R	Q
NICKEL DIACETATE TETRAHYDRATE	06018-89-9	Ni	07440-02-0	2.0E-01	D	1.8E-02		E	H	U	H		R	R	Q
NICKEL HYDROXIDE	12054-48-7	Ni	07440-02-0	2.0E-01	D	6.6E-03		E	H	U	H		R	Q	

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
NICKEL NITRATE	13138-45-9	Ni	07440-02-0	----		1.3E-02		E	H	U	H		R	Q	
NICKEL PHOSPHATE	10381-36-9	Ni3	07440-02-0	----		8.7E-03		E	H	U	H		R	Q	
NICKEL SUBSULFIDE	12035-72-2	Ni3	07440-02-0	2.0E-01	D	2.1E-03		E	H	U	H	A		Q	Q
NICKEL SULFAMIDE	13770-89-3	Ni	07440-02-0	----		1.8E-02		E	H	U	H		R	Q	
NICKEL SULFATE	10101-97-0	Ni	07440-02-0	2.0E-01	D	1.9E-02		E	H	U	H		R	Q	
NICKEL TITANATE	12653-76-8	Ni	07440-02-0	----		1.1E-02		E	H	U	H		R	Q	
NITRAPYRIN	01929-82-4			2000.0	Z	24.0		T							
NITRIC ACID	07697-37-2			86.0	D	12.3		T	M						
NITRIC ACID, Pb SALT	10099-74-8	Pb	07439-92-1	----		6.1E-02		s	H		H		R	Q	
NITRIC OXIDE	10102-43-9			----		74.0		T							
NITROANILINE, PARA-	00100-01-6			----		7.1		T	M						
NITROBENZENE	00098-95-3			----		2.5E-02		E	M	U	H				
NITRODIPHENYL, 4-	00092-93-3			----		2.0E-05		*	H		H	B			
NITROETHANE	00079-24-3			----		730.0		T							
NITROGEN MUSTARD	00051-75-2			----		2.0E-05		*	H						
NITROGEN TRIFLUORIDE	07783-54-2	F3	*FLUORIDE*	6.6	s	8.3E-02		s					R	R	Q
NITROGLYCERINE	00055-63-0			----		1.1		T	M						
NITROMETHANE	00075-52-5			----		120.0		T							
NITRO-O-TOLUIDINE, 5-	00099-55-8			----		2.4		T							
NITROPROPANE, 1-	00108-03-2			----		220.0		T	M						
NITROPROPANE, 2-	00079-46-9			----		20.0		E	H		H				
NITROSODIETHYLAMINE	00055-18-5			----		1.4E-05		E		U					
NITROSODIMETHYLAMINE	00062-75-9			----		4.3E-05		E	H	U	H				
NITROSOMORPHOLINE, N-	00059-89-2			----		5.3E-04		D	M	U	H				
NITroso-N-BUTYLAMINE	00924-16-3			----		6.3E-04		E		U					
NITROSOPYRROLIDINE	00930-55-2			----		1.6E-03		E		U					
NITROTOLUENE, META-	00099-08-1			----		26.0		T							
NITROTOLUENE, ORTHO-	00088-72-2			----		26.0		T							
NITROTOLUENE, PARA-	00099-99-0			----		26.0		T	M						
NITROUS OXIDE	10024-97-2			----		210.0		T							
NONAFLURO-1-HEXANE	19430-93-4			----		2400.0		T							
NONANE	00111-84-2			----		25000.0		T	L						
OCTACHLORONAPHTHALENE	02234-13-1			30.0	Z	2.4E-01		T	M						
OCTAMETHYLCYCLOTETRAILOXANE	00556-67-2			----		360.0		D	M						
OCTANE	00111-65-9			----		3300.0		T							
OSMIUM TETROXIDE	20816-12-0			6.3E-01	Z	5.1E-03		T						Q	Q
OXALIC ACID	00144-62-7			200.0	Z	2.4		T	M						
OXYBIS(BENZENESULFONYLHYDRAZIDE)	00080-51-3			----		2.4E-01		T							
OXYGEN DIFLUORIDE	07783-41-7	F2	*FLUORIDE*	7.5	s	9.5E-02		s					R	R	Q
PARAQUAT	04685-14-7			----		1.2E-01		T							
PARAQUAT DICHLORIDE	01910-42-5		04685-14-7	----		1.2E-01		A						R	
PARAQUAT DIMETHYLSULFATE	02074-50-2		04685-14-7	----		1.2E-01		A						R	
PARATHION	00056-38-2			----		1.2E-01		T	H		H				
PCB AROCLOR 1016	12674-11-2			----		1.0E-02		E	H	U	H				
PCB AROCLOR 1221	11104-28-2			----		1.0E-02		E	H	U	H				
PCB AROCLOR 1232	11141-16-5			----		1.0E-02		E	H	U	H				
PCB AROCLOR 1242	53469-21-9			----		1.0E-02		E	H	U	H				
PCB AROCLOR 1248	12672-29-6			----		1.8E-03		E	H	U	H				
PCB AROCLOR 1254	11097-69-1			----		1.8E-03		E	H	U	H				
PCB AROCLOR 1260	11096-82-5			----		1.8E-03		E	H	U	H				
PCB AROCLOR 1262	37324-23-5			----		1.8E-03		E	H	U	H				
PCB AROCLOR 1268	11100-14-4			----		1.8E-03		E	H	U	H				
PCBs (POLYCHLORINATED BIPHENYLS)	01336-36-3		11096-82-5	----		1.8E-03		A	H	U	H		R		
PENTABORANE	19624-22-7			3.9	Z	3.1E-02		T							
PENTACHLORONAPHTHALENE	01321-64-8			----		1.2		T							
PENTACHLORONITROBENZENE	00082-68-8			----		1.2		T			H				
PENTACHLOROPHENOL	00087-86-5			100.0	Z	2.0E-01		D	M	U	H				

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
PENTAERYTHRITOL	00115-77-5			----		24.0		T							
PENTAFLUORO-ARSORANE	07784-36-3	As	07440-38-2	----		5.2E-04		E	H	U	H		R	Q	
PENTANE	00109-66-0			----		70250.0		T	L						
PENTANEDIONE, 2,4-	00123-54-6			----		245.0		T							
PENTANOL	00071-41-0		00071-36-3	----		1500.0		A	L				R		
PENTEN-2-OL, 4-	00625-31-0		00107-18-6	----		2.8		A	H				R		
PENTENE, 1-	00109-67-1		00592-41-6	----		410.0		A	M				R		
PERACETIC ACID	00079-21-0		07722-84-1	124.0	Z	3.3		A					R		
PERCHLORMETHYL MERCAPTAN	00594-42-3			----		1.8		T							
PERCHLORYL FLUORIDE	07616-94-6	F	*FLUORIDE*	29.0	s	3.6E-01		s					R	R	Q
PERFLUOROISOBUTYLENE	00382-21-8			8.2	Y	----		X							
PERFLUOROCTANOIC ACID (PFOA)	00335-67-1			----		5.3E-03		H	H						
PERMETHRIN	52645-53-1		08003-34-7	----		12.0		A	M				R		
PHENARSINE OXIDE	00058-36-6	As2	07440-38-2	----		7.7E-04		E	H	U	H		R	Q	
PHENOL	00108-95-2			5800.0	D	20.0		H	M	H					
PHENOTHIAZINE	00092-84-2			----		12.0		T							
PHENYL DICHLOROARSINE	00696-28-6	As	07440-38-2	----		6.8E-04		E	H	U	H		R	Q	
PHENYL ETHER	00101-84-8			1400.0	Z	17.0		T							
PHENYL GLYCIDYL ETHER	00122-60-1			----		1.4		T	M						
PHENYL ISOCYANATE	00103-71-9			7.3	Z	6.0E-02		T	H						
PHENYL MERCAPTAN	00108-98-5			----		1.1		T							
PHENYLENEDIAMINE, META-	00108-45-2			----		2.4E-01		T	M						
PHENYLENEDIAMINE, ORTHO-	00095-54-5			----		2.4E-01		T							
PHENYLENEDIAMINE, PARA-	00106-50-3			----		2.4E-01		T	M	H					
PHENYLHYDRAZINE	00100-63-0			----		1.0		T	M						
PHENYLMERCURIC ACETATE	00062-38-4			----		3.7E-02		T	H	H					
PHENYLPHOSPHINE	00638-21-1		07803-51-2	23.0	Y	3.0E-01		A					R		
PHORATE	00298-02-2			----		1.2E-01		T							
PHOSGENE	00075-44-5			4.0	D	3.0E-01		E	H	H					
PHOSPHINE	07803-51-2			21.0	Y	3.0E-01		E	M	H					
PHOSPHONIUM OH-METHYL SULFATE	55566-30-8			----		4.8		T							
PHOSPHORIC ACID	07664-38-2			300.0	Z	10.0		E	M						
PHOSPHORIC ACID, Rx PRODUCTS	92203-02-6		07664-38-2	300.0	A	10.0		A		H			R	R	
PHOSPHOROUS TRICHLORIDE	07719-12-2			280.0	Z	2.6		T							
PHOSPHORUS	07723-14-0			----		7.0E-02		D	M	H					
PHOSPHORUS (P4)	12185-10-3		07723-14-0	----		7.0E-02		A	M	H			R		
PHOSPHORUS OXYCHLORIDE	10025-87-3			----		1.5		T							
PHOSPHORUS PENTACHLORIDE	10026-13-8			----		2.0		T							
PHOSPHORUS PENTASULFIDE	01314-80-3			300.0	Z	2.4		T							
PHTHALIC ANHYDRIDE	00085-44-9			5.0E-01	Z	4.8E-03		T		H					
PHTHALIC ANHYDRIDE, CIS-	13149-00-3			5.0E-01	Y	----		X							
PHTHALIC ANYDRIDE, TRANS-	14166-21-3			5.0E-01	Y	----		X							
PHTHALODINITRILE, META-	00626-17-5			----		12.0		T							
PHTHALODINITRILE, ORTHO-	00091-15-6			----		2.4		T							
PICLORAM	01918-02-1			----		24.0		T							
PICRIC ACID	00088-89-1			----		2.4E-01		T	M						
PIGMENT RED	35355-77-2		07439-96-5	----		5.0E-02		A		H			R		
PINDONE	00083-26-1			----		2.4E-01		T							
PINENE, BETA-	00127-91-3			----		270.0		T							
PIPERAZINE	00110-85-0			----		2.5E-01		T							
PIPERAZINE DIHYDROCHORIDE	00142-64-3			----		4.6E-01		T							
PLATINUM	07440-06-4			----		4.8E-03		T							
POLYACRYLIC ACID	09003-01-4		NY075-00-0	380.0	s	45.0		s	M						
POLYCYCLIC AROMATIC HYDROCARBONS	130498-29-2			----		1.0E-02		H	H	U	H				
POLYETHYLENE GLYCOL DIMETHYL	24991-55-7		00110-80-5	370.0	A	200.0		A	M	H			R	R	
POLYETHYLENE GLYCOL DODECYL ETHER	09002-92-0		00110-80-5	370.0	A	200.0		A	M	H			R	R	
POLYMERIC MDI (PMDI)	09016-87-9			12.0	D	6.0E-01		E	H						



CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
POLYPROPYLENE	09003-07-0		NY075-00-5	380.0	s	----	X	L						R	
POLYSTYRENE DUST	09003-53-6		NY075-00-0	380.0	s	45.0	s	M						R	R
POLYVINYL CHLORIDE (PVC)	09002-86-2			----		2.4	T								
POTASSIUM ARSENITE	10124-50-2	As	07440-38-2	----		5.1E-04	E	H	U	H			R	Q	
POTASSIUM CHROMATE	07789-00-6	Cr	18540-29-9	----		7.5E-05	H	H	U	H			R	Q	
POTASSIUM CYANATE	00590-28-3	CN	00057-12-5	380.0	s	3.5	D	H					R	R	Q
POTASSIUM CYANIDE	00151-50-8	CN	00057-12-5	380.0	s	3.5	D	H	H				R	R	Q
POTASSIUM DICHROMATE	07778-50-9	Cr2	18540-29-9	----		5.7E-05	H	H	U	H			R	Q	
POTASSIUM FERRICYANIDE	13746-66-2	CN	00057-12-5	380.0	s	3.5	D	H	H				R	R	Q
POTASSIUM FERROCYANIDE	13943-58-3	CN	00057-12-5	380.0	s	3.5	D	H	H				R	R	
POTASSIUM GOLD (I) CYANIDE	13967-50-5	C2N2	00057-12-5	380.0	s	3.5	D	H	H				R	R	Q
POTASSIUM GOLD (III) CYANIDE	14263-59-3	C4N4	00057-12-5	380.0	s	3.5	D	H	H				R	R	Q
POTASSIUM HYDROXIDE	01310-58-3			200.0	Y	----	X								
POTASSIUM NICKEL CYANIDE	14220-17-8	Ni	07440-02-0	----		1.7E-02	E	H	U	H			R	Q	
POTASSIUM PERFLUOROCTANOATE	02395-00-8		00335-67-1	----		5.3E-03	A	H					R		
POTASSIUM PERMANGANATE	07722-64-7	Mn	07439-96-5	----		1.4E-01	E	M	H				R	Q	
POTASSIUM PERSULFATE	07727-21-1			----		3.4E-01	T							Q	
PROPANE SULTONE	01120-71-4			----		1.4E-03	D	M	U	H					
PROPANEDIAMINE, 1,3-	00109-76-2		00107-15-3	----		60.0	A	M					R		
PROPANEDIOL, 1,2-	00057-55-6		00107-98-2	36850.0	A	2000.0	A	M					R	R	
PROPANOIC ACID	00079-09-4			----		71.0	T								
PROPANOL	00071-23-8			----		590.0	T								
PROPARGYL ALCOHOL	00107-19-7			----		5.5	T								
PROPIOLACTONE, BETA-	00057-57-8			----		3.6	T	M		H					
PROPIONALDEHYDE	00123-38-6			----		8.0	E		H						
PROPIONITRILE	00107-12-0		00075-05-8	----		60.0	A						R		
PROPOXUR (BAYGON)	00114-26-1			----		1.2	T		H						
PROPOXY-2-PROPANOL, 1-	01569-01-3		00107-98-2	36850.0	A	2000.0	A	M					R	R	
PROPYL ACETATE	00109-60-4			62700.0	Z	995.0	T	L							
PROPYL NITRATE, N-	00627-13-4			17000.0	Z	250.0	T								
PROPYLBENZENE, N-	00103-65-1		00100-41-4	54000.0	A	1000.0	A	M					R	R	
PROPYLENE	00115-07-1			----		3000.0	D								
PROPYLENE DICHLORIDE	00078-87-5			----		4.0	E	M		H					
PROPYLENE GLYCOL 1-METHYL ETHER	00107-98-2			36850.0	Z	2000.0	E	M							
PROPYLENE GLYCOL DINITRATE	06423-43-4			----		8.1E-01	T								
PROPYLENE IMINE	00075-55-8			93.0	Z	1.1	T		H						
PROPYLENE OXIDE, 1,2-	00075-56-9			3100.0	D	2.7E-01	E	M	U	H					
PTFE DECOMPOSITION PRODUCTS	** PTFE **			----		2.0E-05	*	H							
PYRETHRIN	00121-29-9		08003-34-7	----		12.0	A	M					R		
PYRETHRUM	08003-34-7			----		12.0	T	M							
PYRIDINE	00110-86-1			----		74.0	T	L							
QUINONE	00106-51-4			----		1.0	T	M		H					
RESORCINOL	00108-46-3			9000.0	Z	1100.0	T	L							
RHODIUM	07440-16-6			----		2.4E-02	T								
RONNEL	00299-84-3			----		12.0	T								
ROTENONE	00083-79-4			----		12.0	T	M							
SELENIOS ACID	07783-00-8	Se	07782-49-2	----		33.0	D		H				R	Q	
SELENIUM	07782-49-2	Se		----		20.0	D	M		H					
SELENIUM DIOXIDE	07446-08-4	Se	07782-49-2	----		28.0	D		H				R	Q	
SELENIUM DISULFIDE	07488-56-4	Se	07782-49-2	----		36.0	D	M		H			R	Q	
SELENIUM HEXAFLUORIDE	07783-79-1	F6	*FLUORIDE*	9.0	s	1.1E-01	s		H				R	R	Q
SELENIUM SULFIDE	07446-34-6	Se	07782-49-2	----		28.0	D		H				R	Q	
SELENIUM TETRACHLORIDE	10026-03-6	Se	NY075-00-0	----		45.0	s		H				R	Q	
SELENOUREA	00630-10-4	Se	07782-49-2	----		31.0	D		H				R	Q	
SESONE	00136-78-7			----		24.0	T								
SILANE, CHLOROETHENYLDIMETHYL-	01719-58-0		07803-62-5	2100.0	A	16.0	A	M					R	R	
SILICA - CRYSTALLINE	14464-46-1			----		2.0	H				B				

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
SILICA - QUARTZ	14808-60-7			----		2.0		H		H	B				
SILICON CARBIDE	00409-21-2			----		7.1		T							
SILICON TETRAHYDRIDE	07803-62-5			----		16.0		T	M						
SILOXANES AND SILICONES, DIMETHYL	63148-62-9		00556-67-2	----		360.0		A	M				R		
SILVER	07440-22-4			----		18.0		H							
SILVER CYANIDE	00506-64-9	CN	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
SILVER(I) PERFLUOROCTANOATE	00335-93-3		00335-67-1	----		5.3E-03		A	H				R		
SIMAZINE	00122-34-9			----		1.2		T							
SODIUM 3-NITROBENZENESULFONATE	00127-68-4		00098-95-3	----		9.0		A	M				R		
SODIUM ARSENATE	07631-89-2	As	07440-38-2	----		6.4E-04		E	H	U	H		R		Q
SODIUM ARSENITE	07784-46-5	As	07440-38-2	----		4.0E-04		E	H	U	H	A	R		Q
SODIUM AZIDE	26628-22-8			29.0	Y	----		X							
SODIUM BISULFITE	07631-90-5			----		12.0		T							
SODIUM CACODYLATE	00124-65-2	As	07440-38-2	----		4.9E-04		E	H	U	H		R		Q
SODIUM CARBONATE	00497-19-8		01310-73-2	200.0	A	----		X	L					R	
SODIUM CHROMATE (VI)	10034-82-9	Cr	18540-29-9	----		9.1E-05		H	H	U	H		R		Q
SODIUM COPPER DICYANIDE	13715-19-0	C2N2	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
SODIUM CYANATE	00917-61-3	CN	00057-12-5	380.0	s	3.5		D	H				R	R	Q Q
SODIUM CYANIDE	00143-33-9	CN	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
SODIUM DICHROMATE	10588-01-9	Cr2	18540-29-9	----		5.1E-05		H	H	U	H		R		Q
SODIUM FERRICYANIDE	14217-21-1	C6N6	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
SODIUM FERROCYANIDE	13601-19-9	C6N6	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
SODIUM FLUOROACETATE	00062-74-8			----		1.2E-01		T							
SODIUM HYDROXIDE	01310-73-2			200.0	Y	----		X							
SODIUM METABISULFITE	07681-57-4			----		12.0		T							
SODIUM NITRITE	07632-00-0			----		1.0E-01		D	M						
SODIUM PERFLUOROCTANOATE	00335-95-5		00335-67-1	----		5.3E-03		A	H				R		
SODIUM PERSULFATE	07775-27-1			----		3.0		T	L						Q
SODIUM SELENATE	13410-01-0	Se	NY075-00-0	----		45.0		s		H			R		Q
SODIUM STEARATE	00822-16-2			----		7.1		T							
SODIUM SULFATE	07757-82-6			120.0	D	----		X							
SODIUM THIOLYCOLATE	00367-51-1			----		11.2		T							
SODIUM ZINC CYANIDE	15333-24-1	C4N4	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
STEARIC ACID	00057-11-4			----		7.1		T							
STIBINE	07803-52-3			----		1.2		T		H					
STODDARD SOLVENT	08052-41-3			----		900.0		D	M						
STONNOUS OXIDE	21651-19-4			----		5.4		T							Q
STRONTIUM CHROMATE	07789-06-2	Cr	18540-29-9	----		7.9E-05		H	H	U	H	B	R		Q
STRYCHNINE	00057-24-9			----		3.6E-01		T							
STYRENE	00100-42-5			17000.0	Z	1000.0		E	M	H					
STYRENE OXIDE	00096-09-3			----		1.0E-01		D	M	H					
SUBTILISIN	09014-01-1			6.0E-03	Y	----		X	H						
SUCCINONITRILE	00110-61-2		00075-05-8	----		60.0		A					R		
SULFOMETURON METHYL	74222-97-2			----		12.0		T							
SULFOTEP	03689-24-5			----		2.4E-01		T							
SULFUR HEXAFLUORIDE	02551-62-4	F6	*FLUORIDE*	6.8	s	8.6E-02		s					R	R	Q Q
SULFUR MONOCHLORIDE	10025-67-9			380.0	s	----		X						R	
SULFUR PENTAFLUORIDE	05714-22-7	F10	*FLUORIDE*	7.1	s	9.0E-02		s					R	R	Q Q
SULFUR TETRAFLUORIDE	07783-60-0	F4	*FLUORIDE*	7.5	s	9.5E-02		s					R	R	Q Q
SULFURIC ACID	07664-93-9			120.0	D	1.0		D	M						
SULFURIC ACID, Cd	07790-84-3	Cd	07440-43-9	----		4.8E-04		D	H	U	H		R		Q
SULFURYL FLUORIDE	02699-79-8	F2	*FLUORIDE*	14.2	s	1.8E-01		s					R	R	Q Q
SULPROFOS	35400-43-2			----		2.4E-01		T							
SYNTHETIC SILICA	112945-52-5		14464-46-1	----		2.0		A		H			R		
TALC	14807-96-6			----		4.8		T							
TELLURIUM	13494-80-9			----		2.4E-01		T							
TELLURIUM HEXAFLUORIDE	07783-80-4	F6	*FLUORIDE*	11.2	s	1.4E-01		s					R	R	Q Q

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
TEMEPHOS (ABATE)	03383-96-8			----		2.4		T							
TERBUFOS	13071-79-9			----		2.4E-02		T							
TEREPHTHALIC ACID	00100-21-0			----		24.0		T							
TERPHENYL	26140-60-3			500.0	Y	----		X							
TERPHENYL, HYDROGENATED	61788-32-7			----		12.0		T							
TERPINEOL, ALPHA-	00098-55-5		08006-64-2	----		2700.0		A	L				R		
TERT-BUTYL HYDROPEROXIDE	00075-91-2			----		8.8E-01		T							
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8-	01746-01-6			----		2.6E-08		D	H	U	H				
TETRACHLORODIFLUOROETHANE, 1,1,1,2	00076-11-9			----		2000.0		T							
TETRACHLORODIFLUOROETHANE, 1,1,2,2	00076-12-0			----		990.0		T							
TETRACHLOROETHANE, 1,1,2,2-	00079-34-5			----		16.0		T	M		H				
TETRACHLOROETHYLENE	00127-18-4			300.0	H	3.8		E	H	U	H				
TETRACHLORONAPHTHALENE	01335-88-2			----		4.8		T							
TETRADECENE, 1-	01120-36-1		00110-54-3	----		700.0		A	L				R		
TETRAETHYL LEAD	00078-00-2	Pb	07439-92-1	----		5.9E-02		s	H		H		R		Q
TETRAETHYL PYROPHOSPHATE (TEPP)	00107-49-3			----		2.4E-02		T							
TETRAFLUROETHANE	00811-97-2			----		80000.0		E	L						
TETRAFLUROETHYLENE	00116-14-3			----		20.0		T	M						
TETRAHYDROFURAN	00109-99-9			30000.0	Z	350.0		T	M						
TETRAMETHYL LEAD	00075-74-1	Pb	07439-92-1	----		4.9E-02		s	H		H		R		Q
TETRAMETHYLSUCCINONITRILE	03333-52-6			----		6.7		T							
TETRANITROMETHANE	00509-14-8			----		9.5E-02		T							
TETRYL	00479-45-8			----		3.6		T							
THALLIUM	07440-28-0			----		4.8E-02		T	M						
THALLIUM ACETATE	00563-68-8			----		6.1E-02		T							Q
THALLIUM CARBONATE	06533-73-9			----		5.5E-02		T							Q
THALLIUM CHLORIDE	07791-12-0			----		5.6E-02		T							Q
THALLIUM NITRATE	10102-45-1			----		6.2E-02		T							Q
THALLIUM OXIDE	01314-32-5			----		5.3E-02		T	M						Q
THALLIUM SELENITE	12039-52-0	Se	NY075-00-0	----		45.0		s	M		H		R		Q
THALLIUM SULFATE	07446-18-6			----		5.9E-02		T	M						
THIOBIS(6-TERT-BUTYL-M-CRESOL), 4,4'-	00096-69-5			----		2.4		T							
THIOCYANIC ACID, K	00333-20-0	CN	00057-12-5	380.0	s	3.5		D	H		H		R	R	Q Q
THIOGLYCOLIC ACID	00068-11-1			----		9.0		T							
THIONYL CHLORIDE	07719-09-7		07647-01-0	380.0	s	20.0		A					R	R	
THIRAM	00137-26-8			----		1.2E-01		T	M						
TIN	07440-31-5			20.0	Z	2.4E-01		T							
TIN DIOXIDE	18282-10-5			----		6.0		T							Q
TITANIUM DIOXIDE	13463-67-7			----		24.0		T							
TITANIUM TETRACHLORIDE	07550-45-0			----		2.0E-05		*	H		H				
TOLUENE	00108-88-3			37000.0	D	5000.0		E	L		H				
TOLUENE DIISOCYANATE (TDI), MIX ISOMERS	26471-62-5			2.0	D	7.0E-02		E	H						
TOLUENE-2,4-DIISOCYANATE (TDI)	00584-84-9			2.0	D	7.0E-02		E	H		H				
TOLUENE-2,6-DIISOCYANATE (TDI)	00091-08-7			2.0	D	7.0E-02		E	H						
TOLUENEDIAMINE, 2,4-	00095-80-7			----		9.0E-04		D	H	U	H				
TOLUIDINE, META-	00108-44-1			----		21.0		T							
TOLUIDINE, ORTHO-	00095-53-4			----		2.0E-02		D	H		H				
TOLUIDINE, PARA-	00106-49-0			----		21.0		T							
TOXAPHENE	08001-35-2			100.0	Z	3.1E-03		E	H	U	H				
TREMOLITE	77536-68-6		01332-21-4	----		1.6E-05		A	H	U	H	A	R		
TRIBUTYL PHOSPHATE	00126-73-8			----		12.0		T							
TRICHLORFON	00052-68-6			----		2.4		T							
TRICHLOROACETIC ACID	00076-03-9			----		8.0		T							
TRICHLOROBENZENE, 1,2,4-	00120-82-1			3700.0	Y	35.0		D	M		H				
TRICHLOROETHANE, 1,1,2-	00079-00-5			----		1.4		D	H		H				
TRICHLOROETHYLENE	00079-01-6			20.0	H	2.1E-01		E	H	U	H	B			
TRICHLOROFLUOROMETHANE	00075-69-4		00071-55-6	9000.0	A	5000.0		A	L				R	R	

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
TRICHLORONAPHTHALENE	01321-65-9			----		12.0		T							
TRICHLOROPHENOL, 2,4,6-	00088-06-2			----		3.2E-01		E	U	H					
TRICHLOROPROPANE, 1,2,3-	00096-18-4			----		3.0E-01		E							
TRICHLOROTRIFLUOROETHANE, 1,1,2-	00076-13-1			960000.0	Z	180000.0		T	L						
TRIDECANE	00629-50-5		00110-54-3	----		700.0		A	L				R		
TRITHANOLAMINE	00102-71-6			----		12.0		T							
TRIETHYLAMINE	00121-44-8			2800.0	D	7.0		E		H					
TRIETHYLENE GLYCOL	00112-27-6		00107-21-1	1000.0	A	400.0		A	M				R	R	
TRIETHYLENE GLYCOL METHYL ETHER	00112-35-6		00110-80-5	370.0	A	200.0		A	M	H			R	R	
TRIETHYLENETETRAMINE	00112-24-3		00111-40-0	----		10.0		A	M				R		
TRIFLUOROBROMOMETHANE	00075-63-8			----		15000.0		T							
TRIGLYCIDYL ISOCYANURATE	02451-62-9			----		1.2E-01		T							
TRIMELLITIC ANHYDRIDE	00552-30-7			2.0E-01	Y	1.2E-02		T							
TRIMETHOXYSILANE	02487-90-3		07803-62-5	----		16.0		A	M				R		
TRIMETHYL PHOSPHITE	00121-45-9			----		24.0		T							
TRIMETHYLAMINE	00075-50-3			3600.0	Z	29.0		T							
TRIMETHYLBENZENE, 1,2,3-	00526-73-8			----		60.0		E	M						
TRIMETHYLBENZENE, 1,2,4-	00095-63-6			----		60.0		E	M						
TRIMETHYLBENZENE, 1,3,5-	00108-67-8			----		60.0		E	M						
TRIMETHYLBENZENE, MIXED ISOMERS	25551-13-7			----		60.0		E	M						
TRINITROTOLUENE	00118-96-7			----		2.4E-01		T							
TRIOORTHOCRESYL PHOSPHATE	00078-30-8			----		5.0E-02		T							
TRIPHENYL PHOSPHATE	00115-86-6			----		7.1		T							
TRIPHENYLARSINE	00603-32-7	As	07440-38-2	----		9.4E-04		E	H	U	H		R	Q	
TRIPHENYLARSINE OXIDE	01153-05-5	As	07440-38-2	----		9.9E-04		E	H	U	H		R	Q	
TRIPROPYLENE GLYCOL N-BUTYL ETHER	55934-93-5		00107-98-2	36850.0	A	2000.0		A	M				R	R	
TUNGSTEN	07440-33-7			----		7.1		T							
TURPENTINE	08006-64-2			----		2700.0		T	L						
ULTEM	61128-46-9		NY075-00-5	380.0	s	----		X	M					R	
URANIUM	07440-61-1			60.0	Z	4.8E-01		T			A				
URETHANE	00051-79-6			----		2.1E-03		D	M	U	H				
VALERALDEHYDE	00110-62-3			----		420.0		T							
VANADIUM	07440-62-2			----		2.0E-01		H	H						
VANADIUM OXIDE	01314-62-1		07440-62-2	30.0	D	2.0E-01		A	H				R		
VINYL ACETATE	00108-05-4			5300.0	Z	200.0		E	M	H	B				
VINYL BROMIDE	00593-60-2			----		3.0		E	H	H	B				
VINYL CHLORIDE	00075-01-4			180000.0	D	1.1E-01		E	H	U	H	A			
VINYL CYCLOHEXENE	00100-40-3			----		1.0		T	M						
VINYL CYCLOHEXENE DIOXIDE	00106-87-6			----		1.4		T							
VINYL FLUORIDE	00075-02-5		00075-01-4	----		1.1E-01		A	H			B	R		
VINYL PYRROLIDINONE	00088-12-0			----		6.9		D	M						
VINYL TOLUENE	25013-15-4			48000.0	Z	580.0		T							
VINYLDENE CHLORIDE	00075-35-4			----		200.0		H	M	H					
VINYLDENE FLOURIDE	00075-38-7			----		3100.0		T							
WARFARIN	00081-81-2			----		2.4E-01		T							
XYLENE DIAMINE, META-	01477-55-0			10.0	Y	----		X							
XYLENE, META-	00108-38-3			22000.0	D	100.0		E	M	H					
XYLENE, ORTHO-	00095-47-6			22000.0	D	100.0		E	M	H					
XYLENE, PARA-	00106-42-3			22000.0	D	100.0		E	M	H					
XYLENES, M-, O-, & P- (MIXED ISOMERS)	01330-20-7			22000.0	D	100.0		E	M	H					
XYLIDINE	01300-73-8			----		6.0		T	M						
YTTTRIUM	07440-65-5			----		2.4		T							
ZINC	07440-66-6		NY075-00-0	----		45.0		s	L	H		R			
ZINC BROMIDE	07699-45-8		07646-85-7	200.0	A	2.4		A	M				R	R	
ZINC CHLORIDE	07646-85-7			200.0	Z	2.4		T	M						
ZINC CHROMATE	01308-13-0	Cr	18540-29-9	----		7.0E-05		H	H	U	H		R	Q	
ZINC CHROMATE	01328-67-2	Cr	18540-29-9	----		7.0E-05		H	H	U	H		R	Q	

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W T 1 2 3 4 5 6 7 C O D E S
ZINC CHROMATE	13530-65-9	Cr	18540-29-9	-----		7.0E-05	H H U H A R Q
ZINC CYANIDE	00557-21-1	C2N2	00057-12-5	380.0	s	3.5	D H H R R Q Q
ZINC OXIDE	01314-13-2			380.0	s	4.8	T M R
ZINC PHOSPHIDE	01314-84-7		07803-51-2	140.0	A	3.0E-01	A M R R
ZINC POTASSIUM CHROMATE	11103-86-9	Cr2	18540-29-9	-----		8.1E-05	H H U H A R Q
ZINC STEARATE	00557-05-1			-----		7.1	T
ZIRCONIUM	07440-67-7			380.0	s	12.0	T R

**TOXICITY (T):**

- (H) HIGH Toxicity Contaminant
- (M) MEDIUM Toxicity Contaminant
- (L) LOW Toxicity Contaminant

**WHO (W):**

- (A) AGC/SGC based upon NYSDEC "Analogy"
- (D) NYSDEC derived AGC/SGC
- (E) AGC based upon EPA IRIS data (RfC or Unit Risk)
- (H) NYSDOH derived AGC/SGC
- (S) AGC/SGC listed is FEDERAL or NYS Standard
- (T) AGC based upon ACGIH TLV
- (Y) SGC is based on ACGIH Ceiling Value
- (Z) SGC is based on ACGIH STEL
- (\*) AGC assigned High Toxicity "de minimis" limit
- ( ) There is no SGC for this compound
- (s) AGC/SGC based upon Equivalent Federal or NYS Standard
- (X) There is no AGC for this contaminant

**CODES**

- Position 1 (U) AGC equivalent to one in a million excess cancer risk
- Position 2 (H) Federal HAP
- Position 3 (A) ACGIH Human Carcinogen  
(B) ACGIH Suspected Human Carcinogen
- Position 4 (R) AGC Assigned to REFERENCE Compound
- Position 5 (R) SGC Assigned to REFERENCE Compound
- Position 6 (Q) AGC Assigned as different Element(s) & Adjusted
- Position 7 (Q) SGC Assigned as different Element(s) & Adjusted

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
									C O D E S						
PTFE DECOMPOSITION PRODUCTS	** PTFE **			----		2.0E-05		*	H						
FLUORIDE NY STANDARD	*FLUORIDE*	F		5.3	s	6.7E-02		s							
FORMALDEHYDE	00050-00-0			30.0	H	6.0E-02		H	H	U	H	A			
DDT	00050-29-3			----		1.0E-02		E	H	U					
BENZO(A)PYRENE	00050-32-8			----		1.0E-03		E	H	U	H	B			
DINITROPHENOL, 2,4-	00051-28-5			----		2.0E-05		*	H	H					
NITROGEN MUSTARD	00051-75-2			----		2.0E-05		*	H						
URETHANE	00051-79-6			----		2.1E-03		D	M	U	H				
TRICHLORFON	00052-68-6			----		2.4		T							
DIBENZ(A,H)ANTHRACENENE	00053-70-3		00050-32-8	----		1.0E-03		A	H	U	H		R		
NITROSODIETHYLAMINE	00055-18-5			----		1.4E-05		E		U					
FENTHION	00055-38-9			----		1.2E-01		T							
NITROGLYCERINE	00055-63-0			----		1.1		T	M						
CARBON TETRACHLORIDE	00056-23-5			1900.0	D	1.7E-01		E	H	U	H	B			
PARATHION	00056-38-2			----		1.2E-01		T	H	H					
BENZO(A)ANTHRACENE	00056-55-3		00050-32-8	----		1.0E-02		A	H	U	H	B	R		
COUMAPHOS	00056-72-4			----		1.2E-01		T							
STEARIC ACID	00057-11-4			----		7.1		T							
CYANIDE	00057-12-5	CN		380.0	s	3.5		D	H	H				R	
DIMETHYL HYDRAZINE	00057-14-7			----		6.0E-02		T	M	H					
STRYCHNINE	00057-24-9			----		3.6E-01		T							
PROPANEDIOL, 1,2-	00057-55-6		00107-98-2	36850.0	A	2000.0		A	M					R	R
PROPIOLACTONE, BETA-	00057-57-8			----		3.6		T	M	H					
CHLORDANE	00057-74-9		12789-03-6	----		1.0E-02		E	H	U	H		R		
PHENARSINE OXIDE	00058-36-6	As2	07440-38-2	----		7.7E-04		E	H	U	H		R	Q	
HEXACHLOROCYCLOHEXANE, GAMMA-	00058-89-9			----		5.0E-03		H	M	H					
NITROSOMORPHOLINE, N-	00059-89-2			----		5.3E-04		D	M	U	H				
DIMETHYLAMINOAZOBENZENE	00060-11-7			----		7.7E-04		D	M	U	H				
ETHYL ETHER	00060-29-7			150000.0	Z	29000.0		T	L						
MONOMETHYL HYDRAZINE	00060-34-4			----		4.5E-02		T	M	H					
ACETAMIDE	00060-35-5			----		5.0E-02		D	M	U	H				
DIELDRIN	00060-57-1			----		2.2E-04		E	H	U					
AMITROLE	00061-82-5			----		4.8E-01		T							
PHENYLMERCURIC ACETATE	00062-38-4			----		3.7E-02		T	H	H					
ANILINE	00062-53-3			----		6.3E-01		D	H	U	H				
DICHLORVOS	00062-73-7			----		5.0E-01		E	M	H					
SODIUM FLUOROACETATE	00062-74-8			----		1.2E-01		T							
NITROSODIMETHYLAMINE	00062-75-9			----		4.3E-05		E	H	U	H				
CARBARYL	00063-25-2			----		1.2		T		H					
ETHANOL	00064-17-5			----		45000.0		T	L						
FORMIC ACID	00064-18-6			1900.0	Z	22.0		T	M						
ACETIC ACID	00064-19-7			3700.0	Z	60.0		T							
DIETHYL SULFATE	00064-67-5		00077-78-1	----		1.2		A	H	H		R			
METHANOL	00067-56-1			33000.0	Z	4000.0		D	M	H					
ISOPROPYL ALCOHOL	00067-63-0			98000.0	Z	7000.0		D	M						
ACETONE	00067-64-1			180000.0	Z	30000.0		H	L						
CHLOROFORM	00067-66-3			150.0	D	14.7		H	H	U	H				
HEXACHLOROETHANE	00067-72-1			----		23.0		T	H	H					
THIOGLYCOLIC ACID	00068-11-1			----		9.0		T							
DIMETHYLFORMAMIDE	00068-12-2			----		30.0		E	M	H	B				
HEXACHLOROPHENE	00070-30-4			----		1.1		D	H						
PROPANOL	00071-23-8			----		590.0		T							
BUTYL ALCOHOL, N-	00071-36-3			----		1500.0		T	L						
PENTANOL	00071-41-0		00071-36-3	----		1500.0		A	L				R		
BENZENE	00071-43-2			27.0	D	1.3E-01		E	H	U	H	A			
ACETIC ACID, Co	00071-48-7	Co	07440-48-4	----		3.0E-03		D		H		R	Q		
METHYL CHLOROFORM	00071-55-6			9000.0	E	5000.0		E	L	H					

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
ENDRIN	00072-20-8			----		1.0		H							
METHOXYCHLOR	00072-43-5			----		24.0		T	H	H					
DDE	00072-55-9		00050-29-3	----		1.0E-02		A	H	U	H			R	
METHYL BROMIDE	00074-83-9			3900.0	D	5.0		E	M	H					
ETHYLENE	00074-85-1			----		550.0		T							
CHLOROMETHANE	00074-87-3			22000.0	D	90.0		E	M	H					
METHYL IODIDE	00074-88-4			----		29.0		T		H					
METHYLAMINE	00074-89-5			1900.0	Z	15.0		T	M						
HYDROGEN CYANIDE	00074-90-8			340.0	D	8.0E-01		E	H	H					
METHYL MERCAPTAN	00074-93-1			14.0	A	2.3		T	M					R	
ETHYL BROMIDE	00074-96-4			----		52.0		T							
CHLOROBROMOMETHANE	00074-97-5			----		2500.0		T							
METHYL ACETYLENE	00074-99-7			----		3900.0		T	M						
ETHYL CHLORIDE	00075-00-3			----		10000.0		E	L	H					
VINYL CHLORIDE	00075-01-4			180000.0	D	1.1E-01		E	H	U	H	A			
VINYL FLUORIDE	00075-02-5		00075-01-4	----		1.1E-01		A	H		B	R			
ETHYLAMINE	00075-04-7			2800.0	Z	22.0		T							
ACETONITRILE	00075-05-8			----		60.0		E	M	H					
ACETALDEHYDE	00075-07-0			470.0	D	4.5E-01		E	H	U	H				
ETHYL MERCAPTAN	00075-08-1			----		3.1		T	M						
DICHLOROMETHANE	00075-09-2			14000.0	D	46.0		E	M	U	H				
FORMAMIDE	00075-12-7			----		43.0		T	M						
CARBON DISULFIDE	00075-15-0			6200.0	D	700.0		E	M	H					
DIMETHYL SULFIDE	00075-18-3			14.0	A	60.0		T	M					R	
ETHYLENE OXIDE	00075-21-8			18.0	D	2.0E-04		E	H	U	H	B			
BROMOFORM	00075-25-2			----		9.1E-01		E	M	U	H				
BROMODICHLOROMETHANE	00075-27-4			----		70.0		D	M						
ISOPROPYLAMINE	00075-31-0			2400.0	Z	29.0		T	M						
DICHLOROETHANE, 1,1-	00075-34-3			----		6.3E-01		D	L	U	H				
VINYLDENE CHLORIDE	00075-35-4			----		200.0		H	M	H					
ACETYL CHLORIDE	00075-36-5		07647-01-0	2100.0	A	20.0		A	M				R	R	
DIFLUOROETHANE	00075-37-6			----		40000.0		E	L						
VINYLDENE FLOURIDE	00075-38-7			----		3100.0		T							
DICHLOROFLUOROMETHANE	00075-43-4			----		100.0		T							
PHOSGENE	00075-44-5			4.0	D	3.0E-01		E	H	H					
CHLORODIFLUOROMETHANE	00075-45-6			----		50000.0		E							
IODOFORM	00075-47-8			----		24.0		T							
TRIMETHYLAMINE	00075-50-3			3600.0	Z	29.0		T							
NITROMETHANE	00075-52-5			----		120.0		T							
PROPYLENE IMINE	00075-55-8			93.0	Z	1.1		T		H					
PROPYLENE OXIDE, 1,2-	00075-56-9			3100.0	D	2.7E-01		E	M	U	H				
DIFLUORODIBROMOMETHANE	00075-61-6			----		2000.0		T							
TRIFLUOROBROMOMETHANE	00075-63-8			----		15000.0		T							
BUTYL ALCOHOL, TERT-	00075-65-0			----		720.0		T							
CHLORODIFLUOROETHANE	00075-68-3			----		50000.0		E	L						
TRICHLOROFLUOROMETHANE	00075-69-4		00071-55-6	9000.0	A	5000.0		A	L				R	R	
DICHLORODIFLUOROMETHANE	00075-71-8			----		12000.0		T							
FREON 13	00075-72-9		00071-55-6	9000.0	A	5000.0		A	L				R	R	
TETRAMETHYL LEAD	00075-74-1	Pb	07439-92-1	----		4.9E-02		s	H	H			R	Q	
METHANESULFONIC ACID	00075-75-2		07664-93-9	120.0	A	1.0		A	L				R	R	
DIMETHYLDICHLOROSILANE	00075-78-5		07647-01-0	2100.0	A	20.0		A	M				R	R	
DIMETHYLBUTANE, 2,2-	00075-83-2			350000.0	Z	4200.0		T	M						
ACETONE CYANOHYDRIN	00075-86-5			500.0	Y	----		X	H						
TERT-BUTYL HYDROPEROXIDE	00075-91-2			----		8.8E-01		T							
DICHLOROPROPIONIC ACID	00075-99-0			----		12.0		T							
TRICHLOROACETIC ACID	00076-03-9			----		8.0		T							
CHLOROPICRIN	00076-06-2			29.0	D	4.0E-01		D							



CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
									C O D E S						
TETRACHLORODIFLUOROETHANE, 1,1,1,2	00076-11-9			----		2000.0		T							
TETRACHLORODIFLUOROETHANE, 1,1,2,2	00076-12-0			----		990.0		T							
TRICHLOROTRIFLUOROETHANE, 1,1,2-	00076-13-1			960000.0	Z	180000.0		T	L						
DICHLOROTETRAFLUOROETHANE	00076-14-2			----		17000.0		T							
CHLOROPENTAFLUOROETHANE	00076-15-3			----		15000.0		T							
CAMPHOR	00076-22-2			1900.0	Z	29.0		T							
HEPTACHLOR	00076-44-8			----		7.7E-04		E	H	U	H				
HEXACHLOROCYCLOPENTADIENE	00077-47-4			----		2.0E-01		E	M	H					
DICYCLOPENTADIENE	00077-73-6			----		64.0		T							
DIMETHYL SULFATE	00077-78-1			----		1.2		T	H	H					
TETRAETHYL LEAD	00078-00-2	Pb	07439-92-1	----		5.9E-02		s	H	H	R	Q			
ETHYL SILICATE	00078-10-4			----		200.0		T							
TRIOORTHOCRESYL PHOSPHATE	00078-30-8			----		5.0E-02		T							
DIOXATHION	00078-34-2			----		2.4E-01		T							
ISOPHORONE	00078-59-1			2800.0	Y	----		X	M	H					
ISOPENTANE	00078-78-4			----		70250.0		T	L						
ISOBUTYL ALCOHOL	00078-83-1			----		360.0		T							
ISOBUTYRALDEHYDE	00078-84-2		04170-30-3	30.0	A	----		X	M				R		
PROPYLENE DICHLORIDE	00078-87-5			----		4.0		E	M	H					
CHLORO-1-PROPANOL, 2-	00078-89-7			----		9.5		T							
BUTANOL, SEC-	00078-92-2			----		710.0		T							
METHYL ETHYL KETONE	00078-93-3			13000.0	D	5000.0		E	M						
METHYL VINYL KETONE	00078-94-4			60.0	Y	----		X							
CHLOROACETONE	00078-95-5			380.0	Y	----		X							
TRICHLOROETHANE, 1,1,2-	00079-00-5			----		1.4		D	H	H					
TRICHLOROETHYLENE	00079-01-6			20.0	H	2.1E-01		E	H	U	H	B			
CHLOROACETYLCHLORIDE	00079-04-9			69.0	Z	5.5E-01		T							
ACRYLAMIDE	00079-06-1			----		4.1E-03		E	H	U	H				
PROPANOIC ACID	00079-09-4			----		71.0		T							
ACRYLIC ACID	00079-10-7			6000.0	D	1.0		E	M	H					
CHLOROACETIC ACID	00079-11-8			30.0	D	7.0		D	H	H		R			
METHYL ACETATE	00079-20-9			76000.0	Z	1400.0		T							
PERACETIC ACID	00079-21-0		07722-84-1	124.0	Z	3.3		A				R			
NITROETHANE	00079-24-3			----		730.0		T							
ACETYLENE TETRABROMANE	00079-27-6			----		3.3		T							
DIMETHYLBUTANE, 2,3-	00079-29-8			350000.0	Z	4200.0		T							
TETRACHLOROETHANE, 1,1,2,2-	00079-34-5			----		16.0		T	M	H					
METHACRYLIC ACID	00079-41-4			----		170.0		T							
DICHLOROACETIC ACID	00079-43-6			----		6.3		T							
DIMETHYLCARBAMYL CHLORIDE	00079-44-7			----		5.2E-02		T		H	B				
NITROPROPANE, 2-	00079-46-9			----		20.0		E	H	H					
OXYBIS(BENZENESULFONYLHYDRAZIDE)	00080-51-3			----		2.4E-01		T							
CYCLIC DEXADIENE	00080-56-8			----		270.0		T							
METHYL METHACRYLATE	00080-62-6			41000.0	Z	700.0		E	M	H					
WARFARIN	00081-81-2			----		2.4E-01		T							
PENTACHLORONITROBENZENE	00082-68-8			----		1.2		T		H					
PINDONE	00083-26-1			----		2.4E-01		T							
ROTENONE	00083-79-4			----		12.0		T	M						
DIETHYL PHTHALATE	00084-66-2			----		12.0		T	M						
DIBUTYL PHTHALATE	00084-74-2			----		12.0		T		H					
DIQUAT DIBROMIDE	00085-00-7			----		2.4E-01		T							
HEXAHYDROPHTHALIC ANHYDIDE	00085-42-7			5.0E-01	Y	----		X							
PHTHALIC ANHYDRIDE	00085-44-9			5.0E-01	Z	4.8E-03		T		H					
BUTYL BENZYL PHTHALATE	00085-68-7		00117-81-7	----		4.2E-01		A	M	U		R			
BUTYL PHTHALATE GLYCOL	00085-70-1		00084-66-2	----		12.0		A	M			R			
AZINPHOS-METHYL	00086-50-0			----		4.8E-01		T							
ANTU	00086-88-4			----		7.1E-01		T							

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
									C O D E S						
HEXACHLOROBUTADIENE	00087-68-3			----		4.5E-02	E	M	U	H					
PENTACHLOROPHENOL	00087-86-5			100.0	Z	2.0E-01	D	M	U	H					
TRICHLOROPHENOL, 2,4,6-	00088-06-2			----		3.2E-01	E		U	H					
VINYL PYRROLIDINONE	00088-12-0			----		6.9	D	M							
NITROTOLUENE, ORTHO-	00088-72-2			----		26.0	T								
PICRIC ACID	00088-89-1			----		2.4E-01	T	M							
BUTYLPHENOL, O-SEC-	00089-72-5			----		74.0	T								
ANISIDINE, ORTHO-	00090-04-0			----		1.2	T	M		H					
METHYLNAPHTHALENE, 1-	00090-12-0			----		7.1	T								
TOLUENE-2,6-DIISOCYANATE (TDI)	00091-08-7			2.0	D	7.0E-02	E	H							
PHTHALODINITRILE, ORTHO-	00091-15-6			----		2.4	T								
NAPHTHALENE	00091-20-3			7900.0	Z	3.0	E	M		H					
METHYLNAPHTHALENE, 2-	00091-57-6			----		7.1	T								
NAPHTHYLAMINE, 2-	00091-59-8			----		2.0E-05	*	H			A				
DIETHYL ANILINE , N, N-	00091-66-7		00062-53-4	----		6.3E-01	A	M	U			R			
DICHLOROBENZIDINE, 3,3'-	00091-94-1			----		2.9E-03	D	H		H					
BIPHENYL	00092-52-4			----		3.1	T	M		H					
AMINODIPHENYL, PARA-	00092-67-1			----		2.0E-05	*	H		H	A				
PHENOTHIAZINE	00092-84-2			----		12.0	T								
BENZIDINE	00092-87-5			----		9.0E-06	E	H	U	H	A				
NITRODIPHENYL, 4-	00092-93-3			----		2.0E-05	*	H		H	B				
BENZOYL PEROXIDE	00094-36-0			----		12.0	T								
DICHLORPHENOXY, 2,4-	00094-75-7			----		24.0	T			H					
INDENE	00095-13-6			----		57.0	T								
XYLENE, ORTHO-	00095-47-6			22000.0	D	100.0	E	M		H					
CRESOL, ORTHO-	00095-48-7			----		180.0	H	M		H					
CHLOROTOLUENE, ORTHO-	00095-49-8			----		620.0	T								
DICHLOROBENZENE, ORTHO-	00095-50-1			30000.0	Z	200.0	H	M							
TOLUIDINE, ORTHO-	00095-53-4			----		2.0E-02	D	H		H					
PHENYLENEDIAMINE, ORTHO-	00095-54-5			----		2.4E-01	T								
TRIMETHYLBENZENE, 1,2,4-	00095-63-6			----		60.0	E	M							
TOLUENEDIAMINE, 2,4-	00095-80-7			----		9.0E-04	D	H	U	H					
DICHLOROANILINE, 2,5-	00095-82-9		00062-53-3	----		6.3E-01	A	M	U			R			
ALLYL METHACRYLATE	00096-05-9			----		12.3	T								
STYRENE OXIDE	00096-09-3			----		1.0E-01	D	M		H					
DIBROMOCHLOROPROPANE	00096-12-8			----		2.0E-01	E			H					
METHYLPENTANE, 3-	00096-14-0			350000.0	Z	4200.0	T								
TRICHLOROPROPANE, 1,2,3-	00096-18-4			----		3.0E-01	E								
DIETHYL KETONE	00096-22-0			110000.0	Z	1700.0	T								
DICHLOROPROPANOL, 1,3-	00096-23-1		00106-89-8	1300.0	A	8.3E-01	A		U			R	R		
METHYL ACRYLATE	00096-33-3			----		17.0	T	M							
METHYLCYCLOPENTANE	00096-37-7		00110-54-3	----		700.0	A	L				R			
ETHYLENE THIOUREA	00096-45-7			----		7.7E-02	D	H	U	H					
BUTYROLACTONE, GAMMA-	00096-48-0		00057-57-8	----		3.6	A	M				R			
THIOBIS(6-TERT-BUTYL-M-CRESOL), 4,4'-	00096-69-5			----		2.4	T								
DISULFIRAM	00097-77-8			----		4.8	T								
ALUMINUM, TRIETHYL-	00097-93-8			----		10.0	T	H							Q
FURFURYL ALCOHOL	00098-00-0			----		1.9	T				B				
FURFURAL	00098-01-1			----		1.9	T				B				
BENZENEARSONIC ACID	00098-05-5	As	07440-38-2	----		6.2E-04	E	H	U	H		R		Q	
BENZOTRICHLORIDE	00098-07-7			80.0	Y	----	X			H	B				
BUTYLTOLUENE, P-TERT-	00098-51-1			----		15.0	T								
TERPINEOL, ALPHA-	00098-55-5		08006-64-2	----		2700.0	A	L				R			
CHLORO(TRIFLUOROMETHYL)BENZENE	00098-56-6			----		43.0	D	M							
CUMENE	00098-82-8			----		400.0	E			H					
METHYL STYRENE	00098-83-9			----		115.0	T								
ACETOPHENONE	00098-86-2			----		120.0	T			H					

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
BENZOYL CHLORIDE	00098-88-4			280.0	Y	----		X							
NITROBENZENE	00098-95-3			----		2.5E-02		E	M	U	H				
NITROTOLUENE, META-	00099-08-1			----		26.0		T							
NITRO-O-TOLUIDINE, 5-	00099-55-8			----		2.4		T							
DINITROBENZENE, META-	00099-65-0			----		2.4		T	M						
NITROTOLUENE, PARA-	00099-99-0			----		26.0		T	M						
CHLORONITROBENZENE, PARA-	00100-00-5			----		1.5		T	M						
NITROANILINE, PARA-	00100-01-6			----		7.1		T	M						
TEREPHTHALIC ACID	00100-21-0			----		24.0		T							
DINITROBENZENE, PARA-	00100-25-4			----		2.4		T							
DIETHYLAMINOETHANOL	00100-37-8			----		23.0		T							
VINYL CYCLOHEXENE	00100-40-3			----		1.0		T	M						
ETHYLBENZENE	00100-41-4			----		1000.0		E	M		H				
STYRENE	00100-42-5			17000.0	Z	1000.0		E	M		H				
BENZYL CHLORIDE	00100-44-7			240.0	D	2.0E-02		D	H	U	H				
BENZYL ALCOHOL	00100-51-6			1300.0	D	350.0		D	M						
METHYL ANILINE	00100-61-8		00062-53-3	----		6.3E-01		A	M	U				R	
PHENYLHYDRAZINE	00100-63-0			----		1.0		T	M						
ETHYLMORPHOLINE, N-	00100-74-3			----		57.0		T							
METHYLENEBIS(2-CHLOROANILINE), 4,4'-	00101-14-4			----		2.3E-03		D		U	H	B			
METHYLENE DIPHENYL DIISOCYANATE (MDI)	00101-68-8			12.0	D	6.0E-01		E	H		H				
METHYLENE DIANILINE, 4,4'-	00101-77-9			----		2.2E-03		D	M	U	H				
PHENYL ETHER	00101-84-8			1400.0	Z	17.0		T							
DICYCLOPENTADIENYL IRON	00102-54-5			----		24.0		T							
TRIETHANOLAMINE	00102-71-6			----		12.0		T							
DIBUTYLAMINOETOL, 2-N-	00102-81-8			----		8.3		T							
ETHYLHEXYL ACRYLATE	00103-11-7		00096-33-3	----		17.0		A	M					R	
DIOCTYL ADIPATE	00103-23-1		00084-66-2	----		12.0		A	M					R	
AZOBENZENE	00103-33-3			----		3.2E-02		E		U					
PROPYLBENZENE, N-	00103-65-1		00100-41-4	54000.0	A	1000.0		A	M					R	R
ETHYLANILINE, N-	00103-69-5		00062-53-3	----		6.3E-01		A	M	U				R	
PHENYL ISOCYANATE	00103-71-9			7.3	Z	6.0E-02		T	H						
ANISIDINE, PARA-	00104-94-9			----		1.2		T	M						
BUTYL ACETATE, SEC-	00105-46-4			71300.0	Z	565.0		T							
CAPROLACTAM	00105-60-2			----		12.0		T							
ETHYL BUTYL KETONE	00106-35-4			35000.0	Z	560.0		T							
XYLENE, PARA-	00106-42-3			22000.0	D	100.0		E	M		H				
CRESOL, PARA-	00106-44-5			----		18.0		H	M		H				
DICHLOROBENZENE, PARA-	00106-46-7			----		9.1E-02		D	M	U	H				
CHLOROANILINE, PARA-	00106-47-8		00062-53-3	----		6.3E-01		A	M	U				R	
TOLUIDINE, PARA-	00106-49-0			----		21.0		T							
PHENYLENEDIAMINE, PARA-	00106-50-3			----		2.4E-01		T	M		H				
QUINONE	00106-51-4			----		1.0		T	M		H				
ETHYL AMYL KETONE	00106-68-3		00541-85-5	----		120.0		A						R	
VINYL CYCLOHEXENE DIOXIDE	00106-87-6			----		1.4		T							
EPOXYBUTANE, 1,2-	00106-88-7			3000.0	D	20.0		E	M		H				
EPICHLOROHYDRIN	00106-89-8			1300.0	D	8.3E-01		E	M	U	H				
ALLYL GLYCIDYL ETHER	00106-92-3			----		11.0		T							
DIBROMOETHANE, 1, 2	00106-93-4			----		1.7E-03		E	H	U	H				
BROMOPROPANE, 1	00106-94-5			----		4.3E-01		H	H	U					
ALLYL BROMIDE	00106-95-6			99.0	Z	1.2		T							
BUTENE, 1-	00106-98-9			----		1400.0		T							
BUTADIENE, 1,3-	00106-99-0			----		3.3E-02		E	H	U	H	B			
BUTENE, 2-	00107-01-7			----		1400.0		T							
ACROLEIN	00107-02-8			2.5	D	3.5E-01		D	H		H				
ALLYL CHLORIDE	00107-05-1			600.0	Z	1.0		E	M		H				
DICHLOROETHANE, 1,2-	00107-06-2			----		3.8E-02		E	H	U	H				

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
ETHYLENE CHLOROXYDRIN	00107-07-3			330.0	Y	----		X							
PROPIONITRILE	00107-12-0		00075-05-8	----		60.0		A						R	
ACRYLONITRILE	00107-13-1			----		1.5E-02		E	H	U	H				
ACETONITRILE, CHLORO-	00107-14-2		00075-05-8	----		60.0		A		H				R	
ETHYLENE DIAMINE	00107-15-3			----		60.0		T	M						
GLYCOLONITRILE	00107-16-4		00075-05-8	----		60.0		A						R	
ALLYL ALCOHOL	00107-18-6			----		2.8		T	H						
PROPARGYL ALCOHOL	00107-19-7			----		5.5		T							
CHLOROACETALDEHYDE	00107-20-0			320.0	Y	----		X							
ETHYLENE GLYCOL	00107-21-1			1000.0	Z	400.0		D		H					
GLYOXAL	00107-22-2			----		2.4E-01		T							
CHLOROMETHYL METHYL ETHER	00107-30-2		00542-88-1	----		1.6E-05		A	H	U	H	B	R		
METHYL FORMATE	00107-31-3			37000.0	Z	590.0		T	M						
HEXYLENE GLYCOL	00107-41-5			1000.0	Z	290.0		T	L						
HEXAMETHYLDISILOXANE	00107-46-0		00556-67-2	----		360.0		A	M					R	
TETRAETHYL PYROPHOSPHATE (TEPP)	00107-49-3			----		2.4E-02		T							
DIBUTYL PHOSPHATE	00107-66-4			----		12.0		T							
METHYL PENTANE, 2-	00107-83-5			350000.0	Z	4200.0		T	M						
METHYL PROPYL KETONE	00107-87-9			53000.0	Z	----		X							
PROPYLENE GLYCOL 1-METHYL ETHER	00107-98-2			36850.0	Z	2000.0		E	M						
DIMETHYLAMINO ETHANOL, 2-	00108-01-0			----		26.0		D	M						
NITROPROPANE, 1-	00108-03-2			----		220.0		T	M						
VINYL ACETATE	00108-05-4			5300.0	Z	200.0		E	M		H	B			
METHYL ISOBUTYL KETONE	00108-10-1			31000.0	Z	3000.0		E	M		H				
METHYL ISOBUTYL CARBINOL	00108-11-2			17000.0	Z	250.0		T							
DIISOPROPYLAMINE	00108-18-9			----		50.0		T							
ISOPROPYL ETHER	00108-20-3			130000.0	Z	2500.0		T							
ISOPROPYL ACETATE	00108-21-4			62700.0	Z	995.0		T							
ACETIC ANHYDRIDE	00108-24-7			1250.0	Z	10.0		T	M						
MALEIC ANHYDRIDE	00108-31-6			----		7.0E-01		D	M		H				
XYLENE, META-	00108-38-3			22000.0	D	100.0		E	M		H				
CRESOL, META-	00108-39-4			----		180.0		H	M		H				
TOLUIDINE, META-	00108-44-1			----		21.0		T							
PHENYLENEDIAMINE, META-	00108-45-2			----		2.4E-01		T	M						
RESORCINOL	00108-46-3			9000.0	Z	1100.0		T	L						
DIVINYL BENZENE, 1,3-	00108-57-6		01321-74-0	----		130.0		A						R	
METHOXYPROPYLACETATE	00108-65-6		00107-98-2	36850.0	A	2000.0		A	M					R	R
TRIMETHYLBENZENE, 1,3,5-	00108-67-8			----		60.0		E	M						
DIISOBUTYL KETONE	00108-83-8			----		350.0		T							
HEXYL ACETATE, SEC-	00108-84-9			----		7000.0		T	L						
BROMOBENZENE	00108-86-1			----		60.0		E							
METHYLCYCLOHEXANE	00108-87-2			----		3800.0		T	M						
TOLUENE	00108-88-3			37000.0	D	5000.0		E	L		H				
CHLOROBENZENE	00108-90-7			----		60.0		H	M		H				
CYCLOHEXYLAMINE	00108-91-8			----		98.0		T							
CYCLOHEXANOL	00108-93-0			----		490.0		T							
CYCLOHEXANONE	00108-94-1			20000.0	Z	190.0		T	M						
PHENOL	00108-95-2			5800.0	D	20.0		H	M		H				
PHENYL MERCAPTAN	00108-98-5			----		1.1		T							
ISOPROPOXYETHANOL, 2-	00109-59-1			----		250.0		T							
PROPYL ACETATE	00109-60-4			62700.0	Z	995.0		T	L						
BORON TRIFLUORIDE DIETHYL ETHER	00109-63-7			405.0	Y	1.4		T							
PENTANE	00109-66-0			----		70250.0		T	L						
PENTENE, 1-	00109-67-1		00592-41-6	----		410.0		A	M					R	
BUTYLAMINE, N-	00109-73-9			1500.0	Y	----		X	M						
PROPANEDIAMINE, 1,3-	00109-76-2		00107-15-3	----		60.0		A	M					R	
MALONONITRILE	00109-77-3		00075-05-8	----		60.0		A						R	

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
BUTYL MERCAPTAN	00109-79-5			----		4.3		T	M						
METHOXYETHANOL, 2-METHYLAL	00109-86-4			93.0	D	20.0		E	H	H					
DIETHYLAMINE	00109-87-5			----		7400.0		T							
ETHYL ISOCYANATE	00109-89-7			4500.0	Z	36.0		T							
ETHYL FORMATE	00109-90-0			17.0	Z	1.4E-01		T	H						
TETRAHYDROFURAN	00109-94-4			30300.0	Z	----		X							
METHYL ISOAMYL KETONE	00109-99-9			30000.0	Z	350.0		T	M						
ISOBUTYL ACETATE	00110-12-3			23350.0	Z	560.0		T							
METHYL AMYL KETONE	00110-19-0			71300.0	Z	565.0		T	L						
METHOXYETHYL ACETATE, 2-HEXANE	00110-43-0			----		550.0		T							
SUCCINONITRILE	00110-49-6			----		1.2		T							
VALERALDEHYDE	00110-54-3			----		700.0		E	M	H					
GLYCOL MONOETHYL ETHER	00110-61-2		00075-05-8	----		60.0		A						R	
CYCLOHEXANE	00110-62-3			----		420.0		T							
CYCLOHEXENE MIXTURE	00110-80-5			370.0	D	200.0		E	M	H					
PIPERAZINE	00110-82-7			----		6000.0		E	L						
PYRIDINE	00110-83-8			----		2400.0		T							
MORPHOLINE	00110-85-0			----		2.5E-01		T							
ETHOXYETHYL ACETATE, 2-GLUTARALDEHYDE	00110-86-1			----		74.0		T	L						
DIETHYLENE TRIAMINE	00110-91-8			----		170.0		T							
DIETHANOLAMINE	00111-15-9			140.0	D	64.0		T	M	H					
DICHLOROETHYL ETHER	00111-30-8			20.0	Y	8.0E-02		D							
ETHYLENE GLYCOL ALLYL ETHER	00111-35-3		00107-98-2	36850.0	A	2000.0		A	M					R	R
DIETHYLENE GLYCOL	00111-40-0			----		10.0		T	M						
OCTANE	00111-42-2			----		3.0		D		H					
ADIPONITRILE	00111-44-4			5800.0	Z	3.0E-03		E		U	H				
DIETHYLENE GLYCOL MONOETHYL ETHER	00111-45-5		00110-80-5	370.0	A	200.0		A	M	H				R	R
DIETHYLENE GLYCOL DIETHYL	00111-46-6		00107-98-2	36850.0	A	2000.0		A	M					R	R
HEPTYL ACETATE	00111-65-9			----		3300.0		T							
BUTOXYETHANOL, 2-METHYL CARBITOL	00111-69-3			----		21.0		T							
NONANE	00111-76-2			4700.0	D	1600.0		E	M						
DIETHYLENE GLYCOL MONOETHYL ETHER	00111-77-3		00109-86-4	93.0	A	20.0		A	M	H				R	R
DIETHYLENE GLYCOL DIETHYL	00111-84-2			----		25000.0		T	L						
HEPTYL ACETATE	00111-90-0		00110-80-5	370.0	A	200.0		A	M	H				R	R
BUTOXYETHYL ACETATE	00111-96-6		00109-86-4	93.0	A	20.0		A	M	H				R	R
TRIETHYLENETETRAMINE	00112-06-1		00108-84-9	----		7000.0		A	L					R	
TRIETHYLENE GLYCOL	00112-07-2			----		310.0		T	M	H					
BUTYL CARBITOL	00112-24-3		00111-40-0	----		10.0		A	M					R	
DIETHYLENE GLYCOL DIETHYL	00112-27-6		00107-21-1	1000.0	A	400.0		A	M					R	R
DIETHYLENE GLYCOL METHYL ETHER	00112-34-5		00110-80-5	370.0	A	200.0		A	M	H				R	R
DIETHYL CARBITOL	00112-35-6		00110-80-5	370.0	A	200.0		A	M	H				R	R
ETHYLENE GLYCOL DIBUTYL ETHER	00112-36-7		00110-80-5	370.0	A	200.0		A	M	H				R	R
DODECYL MERCAPTAN	00112-48-1		00110-80-5	370.0	A	200.0		A	M	H				R	R
HEXYL CARBITOL	00112-55-0			----		1.9		T							
DIBUTYL CARBITOL	00112-59-4		00110-80-5	370.0	A	200.0		A	M	H				R	R
PROPOXUR (BAYGON)	00112-73-2		00110-80-5	370.0	A	200.0		A	M	H				R	R
PROPYLENE	00114-26-1			----		1.2		T		H					
DIMETHYL ETHER	00115-07-1			----		3000.0		D							
ISOBUTYLENE	00115-10-6		00060-29-7	150000.0	A	29000.0		A	L					R	R
ENDOSULFAN	00115-11-7			----		1400.0		T	M						
PENTAERYTHRITOL	00115-29-7			----		2.3		H							
TRIPHENYL PHOSPHATE	00115-77-5			----		24.0		T							
FENSULFOTHION	00115-86-6			----		7.1		T							
ALDICARB	00115-90-2			----		2.4E-02		T							
TETRAFLUOROETHYLENE	00116-06-3			----		1.2E-02		T							
HEXAFLUOROPROPYLENE	00116-14-3			----		20.0		T	M						
	00116-15-4			----		1.4		T							

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
									C O D E S						
DIOCTYL PHTHALATE	00117-81-7			----		4.2E-01		D	M	U	H				
DICHLORDIMEHYDANTOIN	00118-52-5			40.0	Z	4.8E-01		T							
HEXACHLOROBENZENE	00118-74-1			----		2.2E-03		E	H	U	H				
TRINITROTOLUENE	00118-96-7			----		2.4E-01		T							
DIMETHYLBENZIDINE, 3,3'-	00119-93-7		00062-53-3	----		6.3E-01		A	M	U	H		R		
CATECHOL	00120-80-9		00108-95-2	5800.0	A	20.0		A		H			R		
TRICHLOROBENZENE, 1,2,4-	00120-82-1			3700.0	Y	35.0		D	M	H					
DINITROTOLUENE, 2,4-	00121-14-2			----		1.1E-02		D	H	U	H				
PYRETHRIN	00121-29-9		08003-34-7	----		12.0		A	M				R		
TRIETHYLAMINE	00121-44-8			2800.0	D	7.0		E		H					
TRIMETHYL PHOSPHITE	00121-45-9			----		24.0		T							
DIMETHYLANILINE	00121-69-7			5000.0	Z	60.0		T	M	H					
MALATHION	00121-75-5			----		2.4		T	M						
CYCLONITE	00121-82-4			----		1.2		T							
CHLORONITROANILINE, 2,4-	00121-87-9		00100-01-6	----		7.1		A	M				R		
SIMAZINE	00122-34-9			----		1.2		T							
DIPHENYLAMINE	00122-39-4			----		24.0		T							
PHENYL GLYCIDYL ETHER	00122-60-1			----		1.4		T	M						
DIPHENYLHYDRAZINE	00122-66-7			----		4.5E-03		E	H	U	H			R	
ETHANOL, 2-PHENOXY-	00122-99-6		00110-80-5	370.0	A	200.0		A	M	H			R	R	
DIPROPYL KETONE	00123-19-3			----		550.0		T							
HYDROQUINONE	00123-31-9			----		2.4		T	M	H					
PROPIONALDEHYDE	00123-38-6			----		8.0		E		H					
DIACETONE ALCOHOL	00123-42-2			----		570.0		T	M						
ISOAMYL ALCOHOL	00123-51-3			45000.0	Z	8600.0		T	L						
PENTANEDIONE, 2,4-	00123-54-6			----		245.0		T							
CROTONALDEHYDE, TRANS-	00123-73-9		04170-30-3	86.0	A	----		X						R	
BUTYL ACETATE	00123-86-4			71300.0	Z	565.0		T	L						
DIOXANE, 1,4-	00123-91-1			3000.0	D	2.0E-01		E	M	U	H				
ISOAMYL ACETATE	00123-92-2			53000.0	Z	6300.0		T	L						
ADIPIC ACID	00124-04-9			----		12.0		T							
HEXANEDIAMINE, 1,6-	00124-09-4			----		5.5		T	M						
BUTYL CARBITOL ACETATE	00124-17-4		00110-80-5	370.0	A	200.0		A	M	H			R	R	
DECANE	00124-18-5		00110-54-3	----		700.0		A	M				R		
CARBON DIOXIDE	00124-38-9			----		21000.0		T							
DIMETHYLAMINE	00124-40-3			2800.0	Z	22.0		T							
SODIUM CACODYLATE	00124-65-2	As	07440-38-2	----		4.9E-04		E	H	U	H		R	Q	
ISOBUTANOLAMINE	00124-68-5		00141-43-5	1500.0	A	18.0		A	M				R	R	
TRIBUTYL PHOSPHATE	00126-73-8			----		12.0		T							
METHYLACRYLONITRILE	00126-98-7			----		6.4		T							
CHLOROPRENE, BETA-	00126-99-8			----		3.3E-03		E		H	B				
CHLORO-2-PROPANOL, 1-	00127-00-4			----		9.5		T							
TETRACHLOROETHYLENE	00127-18-4			300.0	H	3.8		E	H	U	H				
DIMETHYLACETAMIDE	00127-19-5			----		85.0		T			B				
SODIUM 3-NITROBENZENESULFONATE	00127-68-4		00098-95-3	----		9.0		A	M				R		
PINENE, BETA-	00127-91-3			----		270.0		T							
DI-TERT-BUTYL-P-CRESOL, 2,6-	00128-37-0			----		48.0		T	L						
DI-TERT-BUTYLPHENOL, 2,6-	00128-39-2		00108-95-2	5800.0	A	20.0		A					R		
DIMETHYL PHTHALATE	00131-11-3			----		12.0		T		H					
CAPTAN	00133-06-2			----		12.0		T		H					
FOLPET	00133-07-3			----		2.4		T			B				
HEXANOIC ACID, Co	00136-52-7	Co	07440-48-4	----		5.1E-03		D		H		R	Q		
SESONE	00136-78-7			----		24.0		T							
METHYL CYANOACRYLATE	00137-05-3			460.0	Z	2.2		T		H					
THIRAM	00137-26-8			----		1.2E-01		T	M						
BUTYL LACTATE, N-	00138-22-7			----		71.0		T							
BENZYL ACETATE	00140-11-4			----		150.0		T							

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
ARAMITE	00140-57-8			----		1.4E-01	E	U							
ETHYL ACRYLATE	00140-88-5			6100.0	Z	48.0	T		H						
BUTYL ACRYLATE, N-	00141-32-2			----		26.0	T								
ETHANOLAMINE	00141-43-5			1500.0	Z	18.0	T	M							
DICROTOPHOS	00141-66-2			----		1.2E-01	T								
ETHYL ACETATE	00141-78-6			----		3400.0	T	M							
MESITYL OXIDE	00141-79-7			10000.0	Z	140.0	T								
PIPERAZINE DIHYDROCHORIDE	00142-64-3			----		4.6E-01	T								
HEPTANE, N-	00142-82-5			210000.0	Z	3900.0	T	M							
SODIUM CYANIDE	00143-33-9	CN	00057-12-5	380.0	s	3.5	D	H	H		R	R	Q	Q	
CHLORDECONE	00143-50-0			----		2.0E-05	*	H							
OXALIC ACID	00144-62-7			200.0	Z	2.4	T	M							
DINITRO-O-TOLUAMIDE	00148-01-6			----		2.4	T								
ETHYL HEXANOIC ACID, 2-	00149-57-5			----		12.0	T								
METHOXYPHENOL, 4-	00150-76-5			----		12.0	T								
POTASSIUM CYANIDE	00151-50-8	CN	00057-12-5	380.0	s	3.5	D	H	H		R	R	Q	Q	
ETHYLENEIMINE	00151-56-4			17.0	Z	2.1E-01	T	H	H						
HALOTHANE	00151-67-7			----		960.0	T								
DICHLOROETHYLENE, CIS-	00156-59-2			----		63.0	D	M							
DICHLOROETHYLENE, TRANS-	00156-60-5			----		63.0	D	M							
CALCIUM CYANAMIDE	00156-62-7			----		1.2	T		H						
INDENO(1,2,3-CD)PYRENE	00193-39-5		00050-32-8	----		1.0E-02	A	H	U	H		R			
BENZO(B)FLUORANTHENE	00205-99-2		00050-32-8	----		1.0E-02	A	H	U	H	B	R			
BENZO(K)FLUORANTHENE	00207-08-9		00050-32-8	----		1.0E-01	A	H	U	H		R			
CHRYSENE	00218-01-9		00050-32-8	----		1.0E-01	A	H	U	H		R			
CYCLOPENTANE	00287-92-3			----		4100.0	T								
METHYL PARATHION	00298-00-0			----		4.8E-02	T								
PHORATE	00298-02-2			----		1.2E-01	T								
DISULFOTON	00298-04-4			----		1.2E-01	T								
RONNEL	00299-84-3			----		12.0	T								
CRUFORMATE	00299-86-5			----		12.0	T								
NALED (DIBROM)	00300-76-5			----		2.4E-01	T								
ACETIC ACID, Pb	00301-04-2	Pb	07439-92-1	----		6.0E-02	s	H	H		R		Q		
HYDRAZINE	00302-01-2			----		2.0E-04	E	H	U	H					
ALDRIN	00309-00-2			----		2.0E-04	E	H	U						
BROMACIL	00314-40-9			----		24.0	T								
HEXACHLOROCYCLOHEXANE, ALPHA-	00319-84-6			----		5.6E-04	E	M	U	H					
HEXACHLOROCYCLOHEXANE, BETA-	00319-85-7			----		1.9E-03	E	M	U	H					
DIURON	00330-54-1			----		24.0	T								
THIOCYANIC ACID, K	00333-20-0	CN	00057-12-5	380.0	s	3.5	D	H	H		R	R	Q	Q	
DIAZINON	00333-41-5			----		2.4E-02	T								
DIAZOMETHANE	00334-88-3			----		8.1E-01	T	M	H	B					
PERFLUOROOCTANOIC ACID (PFOA)	00335-67-1			----		5.3E-03	H	H							
SILVER(I) PERFLUOROOCTANOATE	00335-93-3		00335-67-1	----		5.3E-03	A	H			R				
SODIUM PERFLUOROOCTANOATE	00335-95-5		00335-67-1	----		5.3E-03	A	H			R				
BORON TRIFLUORIDE DIMETHYL ETHER	00353-42-4			325.0	Y	1.1	T								
CARBONYL FLUORIDE	00353-50-4	F2	*FLUORIDE*	9.2	s	1.2E-01	s				R	R	Q	Q	
SODIUM THIOGLYCOLATE	00367-51-1			----		11.2	T								
NICKEL ACETATE	00373-02-4	Ni	07440-02-0	2.0E-01	D	1.3E-02	E	H	U	H		R	R	Q	Q
PERFLUOROISOBUTYLENE	00382-21-8			8.2	Y	----	X								
SILICON CARBIDE	00409-21-2			----		7.1	T								
CYANAMIDE	00420-04-2			----		4.8	T	M							
CYANIC ACID	00420-05-3	CN	00057-12-5	380.0	s	3.5	D	H	H		R	R	Q	Q	
DIACETYL	00431-03-8			7.0	Z	8.4E-02	T	M							
CYANOGEN	00460-19-5		00074-90-8	340.0	D	8.0E-01	A	H			R	R			
KETENE	00463-51-4			260.0	Z	2.0	T	M							
CARBONYL SULFIDE	00463-58-1			250.0	D	28.0	D	M	H						

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
DIMETHYLPROPANE	00463-82-1			----		70250.0		T							
TETRYL	00479-45-8			----		3.6		T							
SODIUM CARBONATE	00497-19-8		01310-73-2	200.0	A	----		X	L					R	
AMINOPYRIDINE, 2	00504-29-0			----		4.8		T							
SILVER CYANIDE	00506-64-9	CN	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
GOLD (1+) CYANIDE	00506-65-0	CN	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
CYANOGEN BROMIDE	00506-68-3		00074-90-8	130.0	Y	8.0E-01		A	H	H			R		
CYANOGEN CHLORIDE	00506-77-4		00074-90-8	75.0	Y	8.0E-01		A	H	H			R		
TETRANITROMETHANE	00509-14-8			----		9.5E-02		T							
COBALT CARBONATE	00513-79-1	Co	07440-48-4	----		2.1E-03		D		H			R		Q
ACETOIN	00513-86-0		00078-93-3	13000.0	A	5000.0		A	M				R	R	
TRIMETHYLBENZENE, 1,2,3-	00526-73-8			----		60.0		E	M						
DINITROBENZENE, ORTHO-	00528-29-0			----		2.4		T							
CHLOROACETOPHENONE, 2-	00532-27-4			----		3.0E-02		E	M	H					
METHYLFURAN, 2-	00534-22-5		00107-02-8	2.5	A	3.5E-01		A	M				R	R	
DINITRO-O-CRESOL	00534-52-1			----		4.8E-01		T		H					
DICHLOROETHYLENE, 1,2-	00540-59-0			----		63.0		D	M						
ISOCTANE	00540-84-1			----		3300.0		T	M	H					
BUTYL ACETATE, TERT-	00540-88-5			71300.0	Z	565.0		T							
DECAMETHYLCYCLOPENTASILOXANE	00541-02-6			----		150.0		D	L						
DICHLOROBENZENE, META-	00541-73-1			----		10.0		H	M						
METHYL HEPTANONE	00541-85-5			----		120.0		T							
BARIUM CYANIDE	00542-62-1	C2N2	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
DICHLOROPROPENE, 1,3-	00542-75-6			----		2.5E-01		E	H	U	H				
CADMIUM CYANIDE	00542-83-6	Cd	07440-43-9	380.0	s	3.5E-04		D	H	U	H		R	R	Q Q
BIS(CHLOROMETHYL)ETHER	00542-88-1			----		1.6E-05		E	H	U	H	A			
CYCLOPENTADIENE, 1,3-	00542-92-7			----		480.0		T	M						
COPPER CYANIDE	00544-92-3	CN	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
TRIMELLITIC ANHYDRIDE	00552-30-7			2.0E-01	Y	1.2E-02		T							
GOLD POTASSIUM CYANIDE	00554-07-4	C2N	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
GLYCIDOL	00556-52-5			----		15.0		T							
OCTAMETHYLCYCLOTETRAASILOXANE	00556-67-2			----		360.0		D	M						
MAGNESIUM STEARATE	00557-04-0			----		7.1		T							
ZINC STEARATE	00557-05-1			----		7.1		T							
NICKEL CYANIDE	00557-19-7	Ni	07440-02-0	2.0E-01	D	7.9E-03		E	H	U	H		R	R	Q Q
ZINC CYANIDE	00557-21-1	C2N2	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q Q
CARBON TETRABROMIDE	00558-13-4			410.0	Z	3.3		T							
ETHION	00563-12-2			----		1.2E-01		T							
THALLIUM ACETATE	00563-68-8			----		6.1E-02		T							Q
METHYL ISOPROPYL KETONE	00563-80-4			----		168.0		T							
METHYLCYCLOHEXANON, ORTHO-	00583-60-8			34000.0	Z	550.0		T							
TOLUENE-2,4-DIISOCYANATE (TDI)	00584-84-9			2.0	D	7.0E-02		E	H	H					
DIPHENYL MERCURY	00587-85-9			----		4.2E-02		T	H	H					Q
BUTENE, CIS-2-	00590-18-1			----		1400.0		T							
POTASSIUM CYANATE	00590-28-3	CN	00057-12-5	380.0	s	3.5		D	H				R	R	Q Q
METHYL BUTYL KETONE	00591-78-6			4000.0	Z	30.0		E							
CALCIUM CYANIDE	00592-01-8	C2N2	00057-12-5	380.0	s	3.5		D	H	H			R	R	Q
HEXENE, 1-	00592-41-6			----		410.0		T							
VINYL BROMIDE	00593-60-2			----		3.0		E	H	H	B				
PERCHLORMETHYL MERCAPTAN	00594-42-3			----		1.8		T							
DICHLORONITROETHANE	00594-72-9			----		29.0		T							
CARBONIC ACID, Mn SALT	00598-62-9	Mn	07439-96-5	----		1.5E-01		E		H			R		
LEAD (II) CARBONATE	00598-63-0	Pb	07439-92-1	----		4.9E-02		s	H	H			R		Q
CHLOROPROPIONIC ACID, 2-	00598-78-7			----		1.0		T							
CHLORONITROPROPANE	00600-25-9			----		24.0		T							
TRIPHENYLARSINE	00603-32-7	As	07440-38-2	----		9.4E-04		E	H	U	H		R		Q
HEXACHLOROCYCLOHEXANE (ISOMERS)	00608-73-1			----		2.0E-03		E		U					



CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
AMYL ACETATE, 3-ETHANOL, 2-(PHENYLMETHOXY)-METHYLBUTYL ACETATE, 2-BUTENE, TRANS-2-METHYL ISOCYANATE	00620-11-1			53000.0	Z	630.0		T							
DIMETHYL DISULFIDE	00622-08-2		00110-80-5	370.0	A	200.0		A		H			R	R	
AMYL ACETATE, TERT-PENTEN-2-OL, 4-PHTHALODINITRILE, META-AMYL ACETATE, SEC-PROPYL NITRATE, N-AMYL ACETATE, N-ETHYLENE GLYCOL DINITRATE	00624-41-9			53000.0	Z	630.0		T							
ETHYLENE GLYCOL DIETHYL ETHER	00624-64-6			----		1400.0		T							
DIETHYLENE GLYCOL METHYL TRIDECANE	00624-83-9			----		1.1E-01		T	H		H				
SELENOUREA	00624-92-0			14.0	A	4.8		T	M					R	
ETHYL TERT-BUTYL ETHER	00625-16-1			53000.0	Z	630.0		T							
PHENYLPHOSPHINE	00625-31-0		00107-18-6	----		2.8		A	H					R	
DIOXOLANE	00626-17-5			----		12.0		T							
METHYL SILICATE	00626-38-0			53000.0	Z	630.0		T							
HEXAFLUOROACETONE	00627-13-4			17000.0	Z	250.0		T							
ETHYLHEXYL METHACRYLATE, 2-PHENYL DICHLOROARSINE	00628-63-7			53000.0	Z	630.0		T							
ETHYL 3-ETHOXYPROPIONATE	00628-96-6			----		7.4E-01		T							
DICHLORO-2-BUTENE, 1,4-ISOPROPYLANILINE, N-TETRAFLUOROETHANE	00629-14-1		00109-86-4	93.0	A	20.0		A	M		H			R	R
HEXAMETHYLENE DIISOCYANATE (HDI)	00629-38-9		00110-80-5	370.0	A	200.0		A	M		H			R	R
SODIUM STEARATE	00629-50-5		00110-54-3	----		700.0		A	L					R	
METHYL PYRROLIDONE	00630-10-4	Se	07782-49-2	----		31.0		D			H			R	Q
AMINOPROPYLTRIETHOXSILANE, 3-DEMETON-S-METHYL	00637-92-3			----		250.0		T							
INDIUM, TRIETHYL-NITROSO-N-BUTYLAMINE	00638-21-1		07803-51-2	23.0	Y	3.0E-01		A						R	
NITROSPYRROLIDINE	00646-06-0			----		1500.0		T	L						
FONOFOS	00681-84-5			----		14.0		T	M						
AMYL METHYL ETHER, TERT-HYDROXYPROPYL ACRYLATE	00684-16-2			----		1.6		T							
HEPTACHLOR EPOXIDE	00688-84-6		00096-33-3	----		17.0		A	M					R	
TETRADECENE, 1-PROPANE SULTONE	00696-28-6	As	07440-38-2	----		6.8E-04		E	H	U	H			R	Q
TRIPHENYLARSINE OXIDE	00763-69-9		00111-15-9	140.0	A	64.0		A	M		H			R	R
METHYLTRIMETHOXSILANE	00764-41-0			----		6.0E-02		T				B			
BUTYL CHROMATE, TERT-XYLIDINE	00768-52-5			----		26.0		T							
GALLIUM ARSENIDE	00811-97-2			----		80000.0		E	L						
ARSENIC PENTOXIDE	00822-06-0			3.0E-01	D	1.0E-02		E	H		H				
BORON OXIDE	00822-16-2			----		7.1		T							
BORATES, DECAHYDRATE	00872-50-4			----		100.0		D	M						
BERYLLIUM OXIDE	00917-61-3	CN	00057-12-5	380.0	s	3.5		D	H					R	R
BISMUTH TELLURIDE	00919-30-2		07803-62-5	----		16.0		A	M					R	
CALCIUM HYDROXIDE	00919-86-8			----		1.2E-01		T							
CALCIUM OXIDE	00923-34-2			----		4.2E-01		T	H						Q
CADMIUM OXIDE	00924-16-3			----		6.3E-04		E		U					
CADMIUM SULFIDE	00930-55-2			----		1.6E-03		E		U					
CADMIUM SULFIDE	00944-22-9			----		2.4E-01		T							
CADMIUM SULFIDE	00994-05-8			----		200.0		T							
CADMIUM SULFIDE	00999-61-1			----		6.7		T							
CADMIUM SULFIDE	01024-57-3			----		3.8E-04		E	H	U					
CADMIUM SULFIDE	01120-36-1		00110-54-3	----		700.0		A	L					R	
CADMIUM SULFIDE	01120-71-4			----		1.4E-03		D	M	U	H				
CADMIUM SULFIDE	01153-05-5	As	07440-38-2	----		9.9E-04		E	H	U	H			R	Q
CADMIUM SULFIDE	01185-55-3		07803-62-5	----		16.0		A	M					R	
CADMIUM SULFIDE	01189-85-1	Cr	18540-29-9	23.0	Y	8.9E-05		H	H	U	H			R	Q
CADMIUM SULFIDE	01300-73-8			----		6.0		T	M						
CADMIUM SULFIDE	01303-00-0	As	07440-38-2	----		4.4E-04		E	H	U	H			R	Q
CADMIUM SULFIDE	01303-28-2	As2	07440-38-2	----		3.5E-04		E	H	U	H	A		R	Q
CADMIUM SULFIDE	01303-86-2			----		24.0		T							
CADMIUM SULFIDE	01303-96-4			----		4.8		T							
CADMIUM SULFIDE	01304-56-9	Be	07440-41-7	----		1.2E-03		E	H	U	H			R	Q
CADMIUM SULFIDE	01304-82-1			----		11.9		T						R	
CADMIUM SULFIDE	01305-62-0			----		12.0		T							
CADMIUM SULFIDE	01305-78-8			----		4.8		T							
CADMIUM SULFIDE	01306-19-0	Cd	07440-43-9	----		2.7E-04		D	H	U	H			R	Q
CADMIUM SULFIDE	01306-23-6	Cd	07440-43-9	----		3.1E-04		D	H	U	H			R	Q

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
CADMIUM SELENIDE	01306-24-7	Cd	07440-43-9	----		4.1E-04			D	H	U	H		R	Q
COBALT OXIDE	01307-96-6	Co	07440-48-4	----		1.3E-03			D	M		H		R	Q
ZINC CHROMATE	01308-13-0	Cr	18540-29-9	----		7.0E-05			H	H	U	H		R	Q
CHROMIUM HYDROXIDE	01308-14-1	Cr	NY075-00-0	----		45.0			s		H			R	Q
CHROMIUM (III) OXIDE	01308-38-9	Cr2	NY075-00-0	----		45.0			s	M		H		R	Q
IRON OXIDE	01309-37-1			----		12.0			T						
MAGNESIUM OXIDE	01309-48-4			----		24.0			T						
LEAD DIOXIDE	01309-60-0	Pb	07439-92-1	----		4.4E-02			s	H		H		R	Q
ANTIMONY TRIOXIDE	01309-64-4	Sb2		----		2.4E-01			E	M		H	B		Q
POTASSIUM HYDROXIDE	01310-58-3			200.0	Y	----			X						
SODIUM HYDROXIDE	01310-73-2			200.0	Y	----			X						
MANGANESE DIOXIDE	01313-13-9	Mn	07439-96-5	----		7.9E-02			E			H		R	Q
NICKEL (II) OXIDE	01313-99-1	Ni	07440-02-0	2.0E-01	D	5.3E-03			E	H	U	H	A	R	Q
NICKEL (III) OXIDE	01314-06-3	Ni2	07440-02-0	----		5.9E-03			E	H	U	H		R	Q
ZINC OXIDE	01314-13-2			380.0	s	4.8			T	M					R
THALLIUM OXIDE	01314-32-5			----		5.3E-02			T	M					Q
LEAD TETRAOXIDE	01314-41-6	Pb3	07439-92-1	----		4.2E-02			s	H		H		R	Q
ANTIMONY OXIDE	01314-60-9			----		1.3			T			H			Q
VANADIUM OXIDE	01314-62-1		07440-62-2	30.0	D	2.0E-01			A	H				R	
PHOSPHORUS PENTASULFIDE	01314-80-3			300.0	Z	2.4			T						
ZINC PHOSPHIDE	01314-84-7		07803-51-2	140.0	A	3.0E-01			A	M				R	R
MANGANESE (III) OXIDE	01317-34-6	Mn2	07439-96-5	----		7.2E-02			E			H		R	Q
MANGANESE TETROXIDE	01317-35-7	Mn3	07439-96-5	----		6.9E-02			E			H		R	Q
LEAD MONOXIDE	01317-36-8	Pb	07439-92-1	----		4.1E-02			s	H		H		R	Q
COBALT SULFIDE	01317-42-6	Co	07440-48-4	----		1.5E-03			D	M		H		R	Q
LEAD CARBONATE HYDROXIDE	01319-46-6	Pb3	07439-92-1	----		4.7E-02			s	H		H		R	Q
CRESOL	01319-77-3			----		180.0			H	M		H			
PENTACHLORONAPHTHALENE	01321-64-8			----		1.2			T						
TRICHLORONAPHTHALENE	01321-65-9			----		12.0			T						
DIVINYLBENZENE, MIX	01321-74-0			----		130.0			T						
ARSENIC ACID	01327-52-2	As	07440-38-2	----		4.4E-04			E	H	U	H		R	Q
ARSENIC TRIOXIDE	01327-53-3	As2	07440-38-2	----		3.0E-04			E	H	U	H	A	R	Q
ZINC CHROMATE	01328-67-2	Cr	18540-29-9	----		7.0E-05			H	H	U	H		R	Q
XYLENES, M-, O-, & P- (MIXED ISOMERS)	01330-20-7			22000.0	D	100.0			E	M		H			
BORATES, ANHYDROUS	01330-43-4			----		4.8			T						
ASBESTOS	01332-21-4			----		1.6E-05			D	H	U	H	A		
KAOLIN (CLAY)	01332-58-7			----		4.8			T						
CHROMIUM (VI) OXIDE	01333-82-0	Cr	18540-29-9	----		3.8E-05			H	H	U	H		R	Q
CARBON BLACK	01333-86-4			----		7.0			T	M					
LEAD ACETATE	01335-32-6	Pb3	07439-92-1	----		4.9E-02			s	H		H		R	Q
HEXACHLORONAPHTHALENE	01335-87-1			----		4.8E-01			T	M					
TETRACHLORONAPHTHALENE	01335-88-2			----		4.8			T						
AQUA AMMONIA	01336-21-6		07664-41-7	2400.0	A	500.0			A	L				R	R
PCBs (POLYCHLORINATED BIPHENYLS)	01336-36-3		11096-82-5	----		1.8E-03			A	H	U	H		R	
MANGANESE NAPHTHENATE	01336-93-2	Mn	07439-96-5	----		3.6E-01			E			H		R	
METHYL ETHYL KETONE PEROXIDE	01338-23-4			150.0	Y	----			X						
ALUMINUM OXIDE	01344-28-1		07429-90-5	----		2.4			A					R	
LEAD SULFOCHROMATE	01344-37-2	Cr	18540-29-9	----		2.0E-05			A	H	U	H		R	
MANGANESE OXIDE	01344-43-0	Mn	07439-96-5	----		6.5E-02			E		H			R	Q
MERCURY SULFIDE	01344-48-5	Hg	07439-97-6	6.0E-01	D	3.5E-01			E	H		H		R	R
ANTIMONY TRISULFIDE	01345-04-6			----		1.7			T			H		R	Q
CADMIUM MERCURY SULFIDE	01345-09-1	Cd	07440-43-9	----		8.1E-04			D	H	U	H		R	Q
COBALT ALUMINATE	01345-16-0	Co	07440-48-4	----		3.0E-03			D			H		R	Q
BACILLOMYCIN	01395-21-7			6.0E-03	Y	----			X	H					
XYLENE DIAMINE, META-CARBOFURAN	01477-55-0			10.0	Y	----			X						
PROPOXY-2-PROPANOL, 1-	01563-66-2			----		2.4E-01			T	M					
	01569-01-3		00107-98-2	36850.0	A	2000.0			A	M				R	R

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
METHYL TERT-BUTYL ETHER	01634-04-4			----		3.8		H	M	H					
ARSENOZO III	01668-00-4	As2	07440-38-2	----		1.2E-03		E	H	U	H		R	Q	
SILANE, CHLOROETHENYLDIMETHYL-	01719-58-0		07803-62-5	2100.0	A	16.0		A	M				R	R	
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8-	01746-01-6			----		2.6E-08		D	H	U	H				
PARAQUAT DICHLORIDE	01910-42-5		04685-14-7	----		1.2E-01		A						R	
ATRAZINE	01912-24-9			----		4.8		T							
PICLORAM	01918-02-1			----		24.0		T							
NITRAPYRIN	01929-82-4			2000.0	Z	24.0		T							
CHLOROSTYRENE, ORTHO-	02039-87-4			43000.0	Z	670.0		T							
PARAQUAT DIMETHYLSULFATE	02074-50-2		04685-14-7	----		1.2E-01		A					R		
EPN	02104-64-5			----		2.4E-01		T							
ALLYL PROPYL DISULFIDE	02179-59-1			----		7.1		T							
CADMIUM STEARATE	02223-93-0	Cd	07440-43-9	----		1.5E-03		D	H	U	H		R	Q	
OCTACHLORONAPHTHALENE	02234-13-1			30.0	Z	2.4E-01		T	M						
ETHYL MERCURIC PHOSPHATE	02235-25-8			----		3.9E-02		T	H	H				Q	
DIGLYCIDYL ETHER	02238-07-5			----		1.2E-01		T							
MIREX	02385-85-5			----		2.0E-05		*	H						
POTASSIUM PERFLUOROCTANOATE	02395-00-8		00335-67-1	----		5.3E-03		A	H				R		
CAPTAOL	02425-06-1			----		2.4E-01		T			B				
BUTYL GLYCIDYL ETHER	02426-08-6			----		38.0		T							
TRIGLYCIDYL ISOCYANURATE	02451-62-9			----		1.2E-01		T							
AURAMINE	02465-27-2			----		2.0E-05		*	H						
TRIMETHOXYSILANE	02487-90-3		07803-62-5	----		16.0		A	M				R		
DIBUTYL PHENYL PHOSPHATE	02528-36-1			----		8.3		T							
SULFUR HEXAFLUORIDE	02551-62-4	F6	*FLUORIDE*	6.8	s	8.6E-02		s					R	R	Q
METHYLVINYLCYCLOSILOXANE	02554-06-5		00556-67-2	----		360.0		A	M				R		
CHLOROBENZMALONONITRILE	02698-41-1			39.0	Y	----		X							
SULFURYL FLUORIDE	02699-79-8	F2	*FLUORIDE*	14.2	s	1.8E-01		s					R	R	Q
DIQUAT	02764-72-9			----		2.4E-01		T							
ETHYLENE GLYCOL MONOPROPYL ETHER	02807-30-9		00110-80-5	370.0	A	200.0		A	M	H			R	R	
CHLORPYRIFOS	02921-88-2			----		2.4E-01		T							
CLOPIDOL	02971-90-6			----		7.0		T							
DMAEE	03033-62-3			98.0	Z	7.9E-01		T							
ARSENOUS ACID, TRIETHYL ESTER	03141-12-6	As	07440-38-2	----		6.4E-04		E		U	H		R	Q	
NAPHTHALENE DIISOCYANATE	03173-72-6		26471-62-5	2.0	A	7.0E-02		A	H				R	R	
TETRAMETHYLSUCCINONITRILE	03333-52-6			----		6.7		T							
CARBONIC ACID, Ni SALT	03333-67-3	Ni	07440-02-0	2.0E-01	D	8.5E-03		E	H	U	H		R	R	Q
TEMEPHOS (ABATE)	03383-96-8			----		2.4		T							
LEAD (II) ARSENATE (3:2)	03687-31-8	As2	07440-38-2	----		1.4E-03		E	H	U	H		R	Q	
SULFOTEP	03689-24-5			----		2.4E-01		T							
DIETHYLHYDROXYLAMINE	03710-84-7			----		17.4		T							
HDI CYANURATE	03779-63-3			4.5	D	4.0E-01		D	H						
AMMONIUM PERFLUOROCTANOATE	03825-26-1		00335-67-1	----		5.3E-03		A	H				R		
ISOPROPYL GLYCIDYL ETHER	04016-14-2			36000.0	Z	570.0		T							
HDI BIURET	04035-89-6			4.5	D	4.0E-01		D	H						
ISOPHORONE DIISOCYANATE	04098-71-9			2.0	A	1.1E-01		T	H				R		
CROTONALDEHYDE	04170-30-3			86.0	Y	----		X							
PARAQUAT	04685-14-7			----		1.2E-01		T							
METHYLENE BIS(4-ISOCYANATOHEXANE)	05124-30-1			----		1.3E-01		T	H						
CITRAL	05392-40-5			----		74.0		T							
SULFUR PENTAFLUORIDE	05714-22-7	F10	*FLUORIDE*	7.1	s	9.0E-02		s					R	R	Q
NICKEL DIACETATE TETRAHYDRATE	06018-89-9	Ni	07440-02-0	2.0E-01	D	1.8E-02		E	H	U	H		R	R	Q
DIQUAT DIBROMIDE MONOHYDRATE	06385-62-2			----		2.4E-01		T							
PROPYLENE GLYCOL DINITRATE	06423-43-4			----		8.1E-01		T							
THALLIUM CARBONATE	06533-73-9			----		5.5E-02		T						Q	
MONOCROTOPHOS	06923-22-4			----		1.2E-01		T							
ETHYL CYANOACRYLATE	07085-85-0			515.0	Z	2.4		T							

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
									C O D E S						
LEAD STEARATE	07428-48-0	Pb	07439-92-1	----		9.0E-02		s	H		H		R		Q
ALUMINUM	07429-90-5			----		2.4		T							
LEAD	07439-92-1	Pb		----		3.8E-02		s	H		H				
MANGANESE	07439-96-5	Mn		----		5.0E-02		E	H		H				
MERCURY	07439-97-6	Hg		6.0E-01	D	3.0E-01		E	H		H				
MOLYBDENUM	07439-98-7			----		1.2		T							
NICKEL	07440-02-0	Ni		2.0E-01	D	4.2E-03		E	H		U		H		
PLATINUM	07440-06-4			----		4.8E-03		T							
RHODIUM	07440-16-6			----		2.4E-02		T							
SILVER	07440-22-4			----		18.0		H							
THALLIUM	07440-28-0			----		4.8E-02		T		M					
TIN	07440-31-5			20.0	Z	2.4E-01		T							
TUNGSTEN	07440-33-7			----		7.1		T							
ANTIMONY	07440-36-0			----		1.2		T		M		H			
ARSENIC	07440-38-2	As		----		2.3E-04		E	H		U		H		A
BARIUM	07440-39-3	Ba		----		5.0E-01		H		M					
BERYLLIUM	07440-41-7	Be		----		4.2E-04		E	H		U		H		A
CADMIUM	07440-43-9	Cd		----		2.4E-04		D	H		U		H		B
CHROMIUM	07440-47-3	Cr	NY075-00-0	----		45.0		s	H		H			R	
COBALT	07440-48-4	Co		----		1.0E-03		D		M		H			
COPPER	07440-50-8	Cu		100.0	D	4.8E-01		T		M					
HAFNIUM	07440-58-6			----		1.2		T							
URANIUM	07440-61-1			60.0	Z	4.8E-01		T						A	
VANADIUM	07440-62-2			----		2.0E-01		H		H					
YTTRIUM	07440-65-5			----		2.4		T							
ZINC	07440-66-6		NY075-00-0	----		45.0		s	L		H			R	
ZIRCONIUM	07440-67-7			380.0	s	12.0		T							R
INDIUM	07440-74-6			----		2.4E-01		T		H					
SELENIUM DIOXIDE	07446-08-4	Se	07782-49-2	----		28.0		D			H			R	Q
LEAD SULFATE	07446-14-2	Pb	07439-92-1	----		5.6E-02		s	H		H			R	Q
THALLIUM SULFATE	07446-18-6			----		5.9E-02		T		M					
LEAD PHOSPHATE SALT	07446-27-7	Pb3	07439-92-1	----		5.0E-02		s	H		H			R	Q
SELENIUM SULFIDE	07446-34-6	Se	07782-49-2	----		28.0		D			H			R	Q
MERCURIC CHLORIDE	07487-94-7	Hg	07439-97-6	6.0E-01	D	4.1E-01		E	H		H			R	R
SELENIUM DISULFIDE	07488-56-4	Se	07782-49-2	----		36.0		D		M		H		R	Q
TITANIUM TETRACHLORIDE	07550-45-0			----		2.0E-05		*	H		H				
IODINE	07553-56-2			100.0	Y	2.4		T		L					
DICHLOROACETYLENE	07572-29-4			39.0	Y	----		X							
LITHIUM HYDRIDE	07580-67-8			5.0	Z	----		X							
PERCHLORYL FLUORIDE	07616-94-6	F	*FLUORIDE*	29.0	s	3.6E-01		s						R	R
SODIUM ARSENATE	07631-89-2	As	07440-38-2	----		6.4E-04		E	H		U		H		Q
SODIUM BISULFITE	07631-90-5			----		12.0		T							
SODIUM NITRITE	07632-00-0			----		1.0E-01		D		M					
BORON TRIFLUORIDE	07637-07-2	F3	*FLUORIDE*	6.3	s	8.0E-02		s						R	R
LEAD ARSENATE	07645-25-2	As	07440-38-2	----		1.1E-03		E	H		U		H		Q
COBALT CHLORINE	07646-79-9	Co	07440-48-4	----		2.2E-03		D			H			R	Q
ZINC CHLORIDE	07646-85-7			200.0	Z	2.4		T		M					
HYDROGEN CHLORIDE	07647-01-0			2100.0	D	20.0		E		M		H			
PHOSPHORIC ACID	07664-38-2			300.0	Z	10.0		E		M					
HYDROGEN FLUORIDE	07664-39-3	F	*FLUORIDE*	5.6	s	7.1E-02		s		M		H		R	R
AMMONIA	07664-41-7			2400.0	Z	500.0		E		L					
SULFURIC ACID	07664-93-9			120.0	D	1.0		D		M					
SODIUM METABISULFITE	07681-57-4			----		12.0		T							
NITRIC ACID	07697-37-2			86.0	D	12.3		T		M					
ZINC BROMIDE	07699-45-8		07646-85-7	200.0	A	2.4		A		M				R	R
IRON CHLORIDE	07705-08-0			----		2.4		T							
NICKEL CHLORIDE	07718-54-9	Ni	07440-02-0	2.0E-01	D	9.3E-03		E	H		U		H		Q

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
THIONYL CHLORIDE	07719-09-7		07647-01-0	380.0	s	20.0		A						R	R
PHOSPHOROUS TRICHLORIDE	07719-12-2			280.0	Z	2.6		T							
POTASSIUM PERMANGANATE	07722-64-7	Mn	07439-96-5	----		1.4E-01		E	M	H				R	Q
HYDROGEN PEROXIDE	07722-84-1			----		3.3		T							
PHOSPHORUS	07723-14-0			----		7.0E-02		D	M	H					
BROMINE	07726-95-6			130.0	Z	1.6		T	M						
POTASSIUM PERSULFATE	07727-21-1			----		3.4E-01		T							Q
BARIUM SULFATE	07727-43-7			----		12.0		T	M						
AMMONIUM PERSULFATE	07727-54-0			----		2.8E-01		T							Q
CHROMIC (VI) ACID	07738-94-5	Cr	18540-29-9	----		4.5E-05		H	H	U	H	A	R		Q
SODIUM SULFATE	07757-82-6			120.0	D	----		X							
LEAD CHLORIDE	07758-95-4	Pb	07439-92-1	----		5.1E-02		s	H	H				R	Q
LEAD CHROMATE	07758-97-6	Cr	18540-29-9	5.0E-02	Z	1.3E-04		H	H	U	H	A	R		Q
AMMONIUM SULFAMATE	07773-06-0			----		240.0		T	L						
MERCURY IODINE	07774-29-0	Hg	07439-97-6	6.0E-01	D	6.8E-01		E	H	H				R	R
CHROMIC ACID, Na SALT	07775-11-3	Cr	18540-29-9	----		6.3E-05		H	H	U	H			R	Q
SODIUM PERSULFATE	07775-27-1			----		3.0		T	L						Q
CALCIUM SULFATE	07778-18-9			----		24.0		T							
ARSENIC ACID	07778-39-4	As	07440-38-2	----		4.4E-04		E	H	U	H	A	R		Q
CALCIUM ARSENATE	07778-44-1	As2	07440-38-2	----		6.1E-04		E	H	U	H			R	Q
POTASSIUM DICHROMATE	07778-50-9	Cr2	18540-29-9	----		5.7E-05		H	H	U	H			R	Q
FLUORINE	07782-41-4			5.3	s	6.7E-02		s	M						
GRAPHITE	07782-42-5			----		4.8		T							
SELENIUM	07782-49-2	Se		----		20.0		D	M	H					
CHLORINE	07782-50-5			116.0	Z	2.0E-01		D	M	H					
GERMANIUM TETRAHYDRIDIDE	07782-65-2			----		1.5		T							
SELENIOS ACID	07783-00-8	Se	07782-49-2	----		33.0		D		H				R	Q
HYDROGEN SULFIDE	07783-06-4			----		2.0		E	M						
HYDROGEN SELENIDE	07783-07-5			5.0	D	----		X		H					
AMMONIUM SULFATE	07783-20-2			120.0	D	----		X	L						
MERCURIC SULFATE	07783-35-9	Hg	07439-97-6	6.0E-01	D	4.5E-01		E	H	H				R	R
OXYGEN DIFLUORIDE	07783-41-7	F2	*FLUORIDE*	7.5	s	9.5E-02		s						R	R
NITROGEN TRIFLUORIDE	07783-54-2	F3	*FLUORIDE*	6.6	s	8.3E-02		s						R	R
SULFUR TETRAFLUORIDE	07783-60-0	F4	*FLUORIDE*	7.5	s	9.5E-02		s						R	R
SELENIUM HEXAFLUORIDE	07783-79-1	F6	*FLUORIDE*	9.0	s	1.1E-01		s		H				R	R
TELLURIUM HEXAFLUORIDE	07783-80-4	F6	*FLUORIDE*	11.2	s	1.4E-01		s						R	R
ARSENOUS TRICHLORIDE	07784-34-1	As	07440-38-2	----		5.6E-04		E	H	U	H			R	Q
ARSENOUS TRIFLUORIDE	07784-35-2	As	07440-38-2	----		4.0E-04		E	H	U	H			R	Q
PENTAFLUORO-ARSORANE	07784-36-3	As	07440-38-2	----		5.2E-04		E	H	U	H			R	Q
LEAD (II) ARSENATE (1:1)	07784-40-9	As	07440-38-2	----		1.1E-03		E	H	U	H			R	Q
ARSINE	07784-42-1			2.0E-01	D	5.0E-02		E	H	H					
SODIUM ARSENITE	07784-46-5	As	07440-38-2	----		4.0E-04		E	H	U	H	A	R		Q
MANGANESE SULFATE	07785-87-7	Mn	07439-96-5	----		1.4E-01		E		H				R	Q
MEVINPHOS	07786-34-7			----		2.4E-02		T							
NICKEL (+2) SULFATE	07786-81-4	Ni	07440-02-0	2.0E-01	D	1.1E-02		E	H	U	H			R	Q
BERYLLIUM FLUORIDE	07787-49-7	Be	07440-41-7	----		2.2E-03		E	H	U	H			R	Q
CHROMYL FLUORIDE	07788-96-7	Cr	18540-29-9	----		4.7E-05		H	H	U	H			R	Q
POTASSIUM CHROMATE	07789-00-6	Cr	18540-29-9	----		7.5E-05		H	H	U	H			R	Q
STRONTIUM CHROMATE	07789-06-2	Cr	18540-29-9	----		7.9E-05		H	H	U	H	B	R		Q
CHROMIC ACID, DIAMMONIUM	07789-09-5	Cr2	18540-29-9	----		4.8E-05		H	H	U	H			R	Q
CHROMIC ACID, DISODIUM	07789-12-0	Cr2	18540-29-9	----		5.8E-05		H	H	U	H			R	Q
BROMINE PENTAFLUORIDE	07789-30-2	F5	*FLUORIDE*	9.8	s	1.2E-01		s						R	R
CADMIUM CHLORIDE HYDRIDE	07790-78-5	Cd	07440-43-9	----		4.3E-04		D	H	U	H			R	Q
CADMIUM IODIDE	07790-80-9	Cd	07440-43-9	----		7.8E-04		D	H	U	H			R	Q
SULFURIC ACID, Cd	07790-84-3	Cd	07440-43-9	----		4.8E-04		D	H	U	H			R	Q
CHLORINE TRIFLUORIDE	07790-91-2	F3	*FLUORIDE*	8.6	s	1.1E-01		s						R	R
THALLIUM CHLORIDE	07791-12-0			----		5.6E-02		T							Q

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
PHOSPHINE	07803-51-2			21.0	Y	3.0E-01		E	M	H					
STIBINE	07803-52-3			----		1.2		T		H					
SILICON TETRAHYDRIDE	07803-62-5			----		16.0		T	M						
AMMONIUM BISULFATE	07803-63-6			120.0	D	----		X							
TOXAPHENE	08001-35-2			100.0	Z	3.1E-03		E	H	U	H				
PYRETHRUM	08003-34-7			----		12.0		T	M						
TURPENTINE	08006-64-2			----		2700.0		T	L						
COKE OVEN EMISSIONS	08007-45-2			----		1.6E-03		E	H	U	H				
KEROSENE	08008-20-6			----		480.0		T							
METHYL DEMETON	08022-00-2			----		1.2E-01		T							
NAPHTHA	08030-30-6			----		900.0		D	M						
LIGROINE	08032-32-4			----		900.0		D	M						
STODDARD SOLVENT	08052-41-3			----		900.0		D	M						
DEMETON	08065-48-3			----		1.2E-01		T							
POLYVINYL CHLORIDE (PVC)	09002-86-2			----		2.4		T							
POLYETHYLENE GLYCOL DODECYL ETHER	09002-92-0		00110-80-5	370.0	A	200.0		A	M	H		R	R		
POLYACRYLIC ACID	09003-01-4		NY075-00-0	380.0	s	45.0		s	M						
POLYPROPYLENE	09003-07-0		NY075-00-5	380.0	s	----		X	L				R		
POLYSTYRENE DUST	09003-53-6		NY075-00-0	380.0	s	45.0		s	M				R	R	
MANGANESE ROSINATE	09008-34-8		07439-96-5	----		5.0E-02		A		H		R			
SUBTILISIN	09014-01-1			6.0E-03	Y	----		X	H						
POLYMERIC MDI (PMDI)	09016-87-9			12.0	D	6.0E-01		E	H						
ACRYLIC MONOMERS	09081-82-7		00079-10-7	6000.0	A	1.0		A	M			R	R		
CADMIUM NITRATE TETRAHYDRATE	10022-68-1	Cd	07440-43-9	----		6.6E-04		D		U	H		R	Q	
NITROUS OXIDE	10024-97-2			----		210.0		T							
SULFUR MONOCHLORIDE	10025-67-9			380.0	s	----		X					R		
CHROMIUM (III) CHLORIDE	10025-73-7	Cr	NY075-00-0	----		45.0		s		H		R	Q		
PHOSPHORUS OXYCHLORIDE	10025-87-3			----		1.5		T							
ANTIMONY TRICHLORIDE	10025-91-9			----		2.2		T		H			Q		
SELENIUM TETRACHLORIDE	10026-03-6	Se	NY075-00-0	----		45.0		s		H		R	Q		
PHOSPHORUS PENTACHLORIDE	10026-13-8			----		2.0		T							
COBALT TRIFLUORIDE	10026-18-3	Co	07440-48-4	----		2.0E-03		D		H		R	Q		
SODIUM CHROMATE (VI)	10034-82-9	Cr	18540-29-9	----		9.1E-05		H	H	U	H		R	Q	
HYDROGEN BROMIDE	10035-10-6			680.0	Y	----		X	L						
BORATE	10043-35-3			----		4.8		T							
MERCURIC NITRATE	10045-94-0	Hg2	07439-97-6	6.0E-01	D	4.9E-01		E	H	H		R	R	Q	Q
CHLORINE DIOXIDE	10049-04-4			28.0	Y	2.0E-01		E	M						
CHROMIUM (III) CHLORIDE HEXAHYDRATE	10060-12-5	Cr	NY075-00-0	----		45.0		s		H		R	Q		
NITRIC ACID, Pb SALT	10099-74-8	Pb	07439-92-1	----		6.1E-02		s	H	H		R	Q		
CHROMIUM SULFATE	10101-53-8	Cr2	NY075-00-0	----		45.0		s		H		R	Q		
NICKEL SULFATE	10101-97-0	Ni	07440-02-0	2.0E-01	D	1.9E-02		E	H	U	H		R	Q	
NITRIC OXIDE	10102-43-9			----		74.0		T							
THALLIUM NITRATE	10102-45-1			----		6.2E-02		T						Q	
CADMIUM CHLORIDE	10108-64-2	Cd	07440-43-9	----		3.9E-04		D	H	U	H		R	Q	
CADMIUM SULFATE	10124-36-4	Cd	07440-43-9	----		4.5E-04		D	H	U	H		R	Q	
COBALT SULFATE	10124-43-3	Co	07440-48-4	----		2.7E-03		D		H		R	Q		
POTASSIUM ARSENITE	10124-50-2	As	07440-38-2	----		5.1E-04		E	H	U	H		R	Q	
MANGANESE PHOSPHATE	10124-54-6	Mn	07439-96-5	----		1.4E-01		E		H		R	Q		
CHROMIUM K SULFATE	10141-00-1	Cr	NY075-00-0	----		45.0		s		H		R	Q		
LEAD MOLYBDATE	10190-55-3	Pb	07439-92-1	----		6.7E-02		s	H	H		R	Q		
COBALT CARBONYL	10210-68-1	Co2	07440-48-4	----		2.9E-03		D		H		R	Q		
BORON TRIBROMIDE	10294-33-4			715.0	Z	----		X							
BORON TRICHLORIDE	10294-34-5			335.0	Z	----		X							
BARIUM CHROMATE	10294-40-3	Cr	18540-29-9	----		9.8E-05		H	H	U	H		R	Q	
CADMIUM NITRATE	10325-94-7	Cd	07440-43-9	----		5.1E-04		D	H	U	H		R	Q	
MANGANESE NITRATE	10377-66-9	Mn	07439-96-5	----		1.6E-01		E		H		R	Q		
NICKEL PHOSPHATE	10381-36-9	Ni3	07440-02-0	----		8.7E-03		E	H	U	H		R	Q	

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
MERCUROUS NITRATE	10415-75-5	Hg	07439-97-6	6.0E-01	D	3.9E-01	E	H	H		R	R	Q	Q	
SODIUM DICHROMATE	10588-01-9	Cr2	18540-29-9	----		5.1E-05	H	H	U	H		R	Q		
CARBENDAZIM	10605-21-7		01563-66-2	----		2.4E-01	A	M			R				
PCB AROCLOR 1260	11096-82-5			----		1.8E-03	E	H	U	H					
PCB AROCLOR 1254	11097-69-1			----		1.8E-03	E	H	U	H					
PCB AROCLOR 1268	11100-14-4			----		1.8E-03	E	H	U	H					
ZINC POTASSIUM CHROMATE	11103-86-9	Cr2	18540-29-9	----		8.1E-05	H	H	U	H	A	R	Q		
PCB AROCLOR 1221	11104-28-2			----		1.0E-02	E	H	U	H					
CHROMIC ACID	11115-74-5	Cr	18540-29-9	----		4.5E-05	H	H	U	H		R	Q		
LEAD SILICATE	11120-22-2	Pb	07439-92-1	----		5.2E-02	s	H		H		R	Q		
PCB AROCLOR 1232	11141-16-5			----		1.0E-02	E	H	U	H					
SYNTHETIC SILICA	112945-52-5		14464-46-1	----		2.0	A		H		R				
MICA	12001-26-2			----		7.1	T								
CROCIDOLITE	12001-28-4		01332-21-4	----		1.6E-05	A	H	U	H	A	R			
CHRYSOTILE	12001-29-5		01332-21-4	----		1.6E-05	A	H	U	H		R			
NICKEL BORIDE	12007-02-2	Ni3	07440-02-0	----		4.5E-03	E	H	U	H		R	Q		
CHROMIUM DIOXIDE	12018-01-8	Cr	NY075-00-0	----		45.0	s		H		R	Q			
NICKEL SUBSULFIDE	12035-72-2	Ni3	07440-02-0	2.0E-01	D	2.1E-03	E	H	U	H	A		Q	Q	
THALLIUM SELENITE	12039-52-0	Se	NY075-00-0	----		45.0	s	M		H		R	Q		
NICKEL HYDROXIDE	12054-48-7	Ni	07440-02-0	2.0E-01	D	6.6E-03	E	H	U	H		R	Q		
LEAD TITANIUM OXIDE	12060-00-3	Pb	07439-92-1	----		5.6E-02	s	H		H		R	Q		
LEAD ZIRCONIUM OXIDE	12060-01-4	Pb	07439-92-1	----		6.4E-02	s	H		H		R	Q		
MANGANESE CYCLOPENTADIENE	12079-65-1			----		8.8E-01	T		H			R	Q		
METHYLCYCLOPENTADIENYL Mn TRICAR	12108-13-3			----		1.5	T		H				Q		
AMMONIUM BROMIDE	12124-97-9		12125-02-9	380.0	s	24.0	A	M				R	R		
AMMONIUM CHLORIDE	12125-02-9			380.0	s	24.0	T	M					R		
AMOSITE	12172-73-5		01332-21-4	----		1.6E-05	A	H	U	H	A	R			
BORATES, PENTAHYDRATE	12179-04-3			----		4.8	T								
PHOSPHORUS (P4)	12185-10-3		07723-14-0	----		7.0E-02	A	M		H		R			
LEAD OXIDE SULFATE	12202-17-4	Pb	07439-92-1	----		4.7E-02	s	H		H		R	Q		
CADMIUM ZINC SULFIDE	12442-27-2	Cd	07440-43-9	----		5.2E-04	D	H	U	H		R	Q		
FERROVANADIUM DUST	12604-58-9			300.0	Z	2.4	T								
LEAD TITANATE ZIRCON	12626-81-2	Pb	07439-92-1	----		7.2E-02	s	H		H		R	Q		
NICKEL TITANATE	12653-76-8	Ni	07440-02-0	----		1.1E-02	E	H	U	H		R	Q		
PCB AROCLOR 1248	12672-29-6			----		1.8E-03	E	H	U	H					
PCB AROCLOR 1016	12674-11-2			----		1.0E-02	E	H	U	H					
NICKEL CARBIDE	12710-36-0	Ni3	07440-02-0	----		4.5E-03	E	H	U	H		R	Q		
CHLORDANE, TECHNICAL	12789-03-6			----		1.0E-02	E	H	U						
CARFENTRAZONE-ETHYL	128639-02-1			----		2.4	T								
POLYCYCLIC AROMATIC HYDROCARBONS	130498-29-2			----		1.0E-02	H	H	U	H					
TERBUFOS	13071-79-9			----		2.4E-02	T								
CYHEXATIN	13121-70-5			----		12.0	T								
FLUDIOXONIL	131341-86-1			----		2.4	T				B				
NICKEL NITRATE	13138-45-9	Ni	07440-02-0	----		1.3E-02	E	H	U	H		R	Q		
PHTHALIC ANHYDRIDE, CIS-	13149-00-3			5.0E-01	Y	----	X								
GYPSUM	13397-24-5			----		24.0	T								
SODIUM SELENATE	13410-01-0	Se	NY075-00-0	----		45.0	s		H		R	Q			
NICKEL BROMIDE	13462-88-9	Ni	07440-02-0	----		1.6E-02	E	H	U	H		R	Q		
NICKEL CARBONYL	13463-39-3	Ni	07440-02-0	----		1.2E-02	E	H	U	H		R	Q		
IRON PENTACARBONYL	13463-40-6			160.0	Z	1.9	T								
TITANIUM DIOXIDE	13463-67-7			----		24.0	T								
ARSENOUS ACID	13464-58-9	As		----		3.9E-04	E	H		H	A	R	Q		
CARENE, 3	13466-78-9			----		270.0	T								
TELLURIUM	13494-80-9			----		2.4E-01	T								
BERYLLIUM SULFATE	13510-49-1	Be	07440-41-7	----		5.0E-03	E	H	U	H		R	Q		
ZINC CHROMATE	13530-65-9	Cr	18540-29-9	----		7.0E-05	H	H	U	H	A	R	Q		
DICHROMIC ACID	13530-68-2	Cr2	18540-29-9	----		4.2E-05	H	H	U	H		R	Q		

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W	T	1	2	3	4	5	6	7
							C O D E S								
SODIUM FERROCYANIDE	13601-19-9	C6N6	00057-12-5	380.0	s	3.5		D	H	H	R	R	Q	Q	
SODIUM COPPER DICYANIDE	13715-19-0	C2N2	00057-12-5	380.0	s	3.5		D	H	H	R	R	Q	Q	
POTASSIUM FERRICYANIDE	13746-66-2	CN	00057-12-5	380.0	s	3.5		D	H	H	R	R	Q	Q	
CALCIUM CHROMATE	13765-19-0	Cr	18540-29-9	----		6.1E-05		H	H	U	H	B	R	Q	
NICKEL SULFAMIDE	13770-89-3	Ni	07440-02-0	----		1.8E-02		E	H	U	H	R	Q		
LEAD FLUOROBORATE	13814-96-5	Pb	07439-92-1	----		7.0E-02		s	H	H	R	Q			
ENFLURANE	13838-16-9			----		1300.0		T							
CHROMATE	13907-45-4	Cr	18540-29-9	----		4.5E-05		H	H	U	H	R	Q		
POTASSIUM FERROCYANIDE	13943-58-3	CN	00057-12-5	380.0	s	3.5		D	H	H	R	R			
POTASSIUM GOLD (I) CYANIDE	13967-50-5	C2N2	00057-12-5	380.0	s	3.5		D	H	H	R	R	Q	Q	
CALCIUM SILICATE	13983-17-0			----		2.4		T							
COBALTOUS SULFAMATE	14017-41-5	Co	07440-48-4	----		4.3E-03		D		H	R	Q			
PHTHALIC ANYDRIDE, TRANS-	14166-21-3			5.0E-01	Y	----		X							
SODIUM FERRICYANIDE	14217-21-1	C6N6	00057-12-5	380.0	s	3.5		D	H	H	R	R	Q	Q	
POTASSIUM NICKEL CYANIDE	14220-17-8	Ni	07440-02-0	----		1.7E-02		E	H	U	H	R	Q		
CADMIUM DIETHYLDITHIOCARBAMATE	14239-68-0	Cd	07440-43-9	----		8.7E-04		D	H	U	H	R	Q		
POTASSIUM GOLD (III) CYANIDE	14263-59-3	C4N4	00057-12-5	380.0	s	3.5		D	H	H	R	R	Q	Q	
CHROMIC ACID, DILITHIUM	14307-35-8	Cr	18540-29-9	----		5.1E-05		H	H	U	H	R	Q		
SILICA - CRYSTALLINE	14464-46-1			----		2.0		H		B					
FERBAM	14484-64-1			----		12.0		T							
TALC	14807-96-6			----		4.8		T							
SILICA - QUARTZ	14808-60-7			----		2.0		H		H	B				
DIMETHYLETHOXYSILANE	14857-34-2			----		5.0		T							
CHROMIUM OXYCHLORIDE	14977-61-8	Cr	18540-29-9	----		6.0E-05		H	H	U	H	R	Q		
SODIUM ZINC CYANIDE	15333-24-1	C4N4	00057-12-5	380.0	s	3.5		D	H	H	R	R	Q	Q	
MERCUROUS OXIDE	15829-53-5	Hg2	07439-97-6	6.0E-01	D	3.1E-01		E	H	H	R	R	Q	Q	
ALACHLOR	15972-60-8			----		2.4		T	M						
CHROMIUM (III)	16065-83-1	Cr	NY075-00-0	----		45.0		s	M	H	R				
ETHYLIDENE NORBORNENE	16219-75-3			1960.0	Z	2.3		T							
METHOMYL	16752-77-5			----		5.0E-01		T							
COBALT HYDROCARBONYL	16842-03-8	Co	07440-48-4	----		2.9E-03		D		H	R	Q			
ANTIMONATE, HEXAFLUORO, SODIUM	16925-25-0			----		2.5		T		H				Q	
DECABORANE	17702-41-9			75.0	Z	6.0E-01		T							
BENOMYL	17804-35-2			----		2.4		T							
TIN DIOXIDE	18282-10-5			----		6.0		T						Q	
LEAD CHROMATE OXIDE	18454-12-1	Cr	18540-29-9	----		2.1E-04		H	H	U	H	R	Q		
CHROMIUM (VI)	18540-29-9	Cr		----		2.0E-05		H	H	U	H	A			
DIBORANE	19287-45-7			----		2.6E-01		T							
NONAFLUORO-1-HEXANE	19430-93-4			----		2400.0		T							
PENTABORANE	19624-22-7			3.9	Z	3.1E-02		T							
CHROMIUM OXIDE PYRIDINE	20492-50-6	Cr	18540-29-9	----		9.9E-05		H		U	H	R	Q		
OSMIUM TETROXIDE	20816-12-0			6.3E-01	Z	5.1E-03		T						Q	Q
METRIBUZIN	21087-64-9			----		12.0		T							
CESIUM HYDROXIDE	21351-79-1			----		4.8		T							
STONNOUS OXIDE	21651-19-4			----		5.4		T						Q	
MERCURIC OXIDE	21908-53-2	Hg	07439-97-6	6.0E-01	D	3.2E-01		E	H	H	R	R	Q	Q	
FENAMIPHOS	22224-92-6			----		1.2E-01		T							
BENDIOCARB	22781-23-3			----		2.4E-01		T							
METHYLMERCURY	22967-92-6			3.0	Z	2.4E-02		T	H	H					
POLYETHYLENE GLYCOL DIMETHYL	24991-55-7		00110-80-5	370.0	A	200.0		A	M	H	R	R			
VINYL TOLUENE	25013-15-4			48000.0	Z	580.0		T							
BUTYLENE	25167-67-3			----		1400.0		T							
DIPROPYLENE GLYCOL	25265-71-8		00107-21-1	1000.0	A	400.0		A	L		R	R			
DINITROTOLUENE	25321-14-6		00121-14-2	----		1.1E-02		A	H	U	H	R			
LEAD (2+) CARBONATE	25510-11-6	Pb	07439-92-1	----		4.9E-02		s	H	H	R	Q			
TRIMETHYLBENZENE, MIXED ISOMERS	25551-13-7			----		60.0		E	M						
METHYLCYCLOHEXANOL	25639-42-3			----		560.0		T							



CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W T	1 2 3 4 5 6 7	
							C O D E S		
GLYCEROL PROPYLENE GLYCOL TRIETHER TERPHENYL	25791-96-2		00107-21-1	1000.0	A	400.0	A M	R R	
DIPHENYLMETHANE DIISOCYANATE	26140-60-3			500.0	Y	----	X		
TOLUENE DIISOCYANATE (TDI), MIX ISOMERS	26447-40-5		00101-68-8	12.0	A	6.0E-01	A H	R R	
METHYLCYCLOPENTADIENE, 1,3-	26471-62-5			2.0	D	7.0E-02	E H		
MERCURY, (NEODECANOATO), PHENYL-	26519-91-5		00542-92-7	----		480.0	A M	R	
SODIUM AZIDE	26545-49-3			----		5.3E-02	T H	H Q	
DIISODECYL PHTHALATE	26628-22-8			29.0	Y	----	X		
ISOCTYL ALCOHOL	26761-40-0		00084-66-2	----		12.0	A M	R	
DIISOOCTYL PHTHALATE	26952-21-6			----		630.0	T		
HDI HOMOPOLYMER	27554-26-3		00084-66-2	----		12.0	A M	R	
BROMADIOLONE	28182-81-2			4.5	D	4.0E-01	D H		
ANISIDINE	28772-56-7			----		2.0E-05	* H		
CHLORINATED DIPHENYL OXIDE	29191-52-4			----		1.2	T M		
DIPROPYLENE GLYCOL METHYL ETHER	31242-93-0			----		1.2	T		
BUTANOL	34590-94-8			91000.0	Z	1400.0	T		
PIGMENT RED	35296-72-1		00071-36-3	----		1500.0	A L	R	
SULPROFOS	35355-77-2		07439-96-5	----		5.0E-02	A	H R	
GOLD CYANIDE	35400-43-2			----		2.4E-01	T		
PCB AROCLOR 1262	37187-64-7	CN	00057-12-5	380.0	s	3.5	D H	H R R Q Q	
Ni, BIS(DIMETHYLAMINO)PHENYL-ETHEN	37324-23-5			----		1.8E-03	E H	U H	
DIALKYL PHTHALATES	38465-55-3	Ni	07440-02-0	----		4.5E-02	E H	U H R R Q Q	
BERULLIUM ZINC SILICONE	39393-37-8		00084-66-2	----		12.0	A M	R	
BARIUM LEAD SULFATE	39413-47-3	Be	07440-41-7	----		7.8E-03	E H	U H A R Q	
ACETIC ACID, Pb SALT, BASIC	42579-89-5	Pb	07439-92-1	----		9.8E-02	s H	H R Q	
NICKEL AZO YELLOW	51404-69-4	Pb3	07439-92-1	----		4.9E-02	s H	H R Q	
CYPERMETHRIN	51931-46-5	Ni	07440-02-0	----		4.7E-02	E H	U H R R Q Q	
PERMETHRIN	52315-07-8		08003-34-7	----		12.0	A M	R	
COBALT COMPLEX	52645-53-1		08003-34-7	----		12.0	A M	R	
PCB AROCLOR 1242	53108-50-2	Co	07440-48-4	----		4.2E-03	D M	H R Q	
PHOSPHONIUM OH-METHYL SULFATE	53469-21-9			----		1.0E-02	E H	U H	
CYCLOHEXANEBUTANOIC ACID, Cd SALT	55566-30-8			----		4.8	T		
TRIPROPYLENE GLYCOL N-BUTYL ETHER	55700-14-6	Cd	07440-43-9	----		9.6E-04	D H	U H R Q	
LEAD STEARATE	55934-93-5		00107-98-2	36850.0	A	2000.0	A M	R R	
DIETHYLENE GLYCOL ADIPATE	56189-09-4	Pb2	07439-92-1	----		9.0E-02	s H	H R Q	
METHYL ACETYLENE - PROPADIENE MIX	58984-19-3		00110-80-5	370.0	A	200.0	A	H R R	
ULTEM	59355-75-8			210000.0	Z	3900.0	T		
TERPHENYL, HYDROGENATED	61128-46-9		NY075-00-5	380.0	s	----	X M	R	
COBALT NAPHTHENATE	61788-32-7			----		12.0	T		
LEAD NAPHTHENATE	61789-51-3	Co	07440-48-4	----		6.8E-03	D M	H R	
SILOXANES AND SILICONES, DIMETHYL	61790-14-5	Pb	07439-92-1	----		8.5E-02	s H	H R Q	
DISTILLATE HYDROTREATED MIDDLE	63148-62-9		00556-67-2	----		360.0	A M	R	
DISTILLATE HYDROTREATED LIGHT	64742-46-7			----		900.0	D M		
NAPHTHA HYDROTREATED HEAVY	64742-47-8			----		900.0	D M		
DISTILLATE HYDRO LIGHT NAPHTHENIC	64742-48-9			----		900.0	D M		
DISTILLATE HEAVY PARAFFINIC	64742-53-6			----		900.0	D M		
KEROSENE HYDRODESULFURIZED	64742-65-0			----		3200.0	D M		
NAPHTHA MEDIUM ALIPHATIC	64742-81-0			----		900.0	D M		
NAPHTHA LIGHT ALIPHATIC	64742-88-7			----		3200.0	D M		
NAPHTHA HEAVY AROMATIC	64742-89-8			----		3200.0	D M		
NAPHTHA LIGHT AROMATIC	64742-94-5			----		100.0	D M		
NATHTHA HEAVY ALIPHATIC	64742-95-6			----		100.0	D M		
ALPHA-CYPERMETHRIN	64742-96-7			----		3200.0	D M		
MELAMINE FORMALDEHYDE	67375-30-8		08003-34-7	----		12.0	A M	R	
LEAD, BENZENEDICARBOXYLATO, DIOX-	68891-01-0		NY075-00-0	380.0	s	45.0	s M	U	
BUTADIENE POLYMER	69011-06-9	Pb3	07439-92-1	----		5.0E-02	s H	H R Q	
SULFOMETURON METHYL	69102-90-5		00106-99-0	----		3.3E-02	A H	U R	
	74222-97-2			----		12.0	T		

CHEMICAL NAME	CAS NUMBER	ELEMENT	REFERENCED COMPOUND	SGC $\mu\text{g}/\text{m}^3$	W	AGC $\mu\text{g}/\text{m}^3$	W T 1 2 3 4 5 6 7 C O D E S
ETHOXYLATED ALCOHOLS	74432-13-6		00110-80-5	370.0	A	200.0	A M H R R
ACTINOLITE	77536-66-4		01332-21-4	----		1.6E-05	A H U H A R
ANTHOPHYLLITE	77536-67-5		01332-21-4	----		1.6E-05	A H U H A R
TREMOLITE	77536-68-6		01332-21-4	----		1.6E-05	A H U H A R
BIFENTHRIN	82657-04-3		08003-34-7	----		12.0	A M R
PHOSPHORIC ACID, Rx PRODUCTS	92203-02-6		07664-38-2	300.0	A	10.0	A H R R
CADUSAFOS	95465-99-9			----		2.4E-03	T

**TOXICITY (T):**

- (H) HIGH Toxicity Contaminant
- (M) MEDIUM Toxicity Contaminant
- (L) LOW Toxicity Contaminant

**WHO (W):**

- (A) AGC/SGC based upon NYSDEC "Analogy"
- (D) NYSDEC derived AGC/SGC
- (E) AGC based upon EPA IRIS data (RfC or Unit Risk)
- (H) NYSDOH derived AGC/SGC
- (S) AGC/SGC listed is FEDERAL or NYS Standard
- (T) AGC based upon ACGIH TLV
- (Y) SGC is based on ACGIH Ceiling Value
- (Z) SGC is based on ACGIH STEL
- (\*) AGC assigned High Toxicity "de minimis" limit
- ( ) There is no SGC for this compound
- (s) AGC/SGC based upon Equivalent Federal or NYS Standard
- (X) There is no AGC for this contaminant

**CODES**

- Position 1 (U) AGC equivalent to one in a million excess cancer risk
- Position 2 (H) Federal HAP
- Position 3 (A) ACGIH Human Carcinogen  
(B) ACGIH Suspected Human Carcinogen
- Position 4 (R) AGC Assigned to REFERENCE Compound
- Position 5 (R) SGC Assigned to REFERENCE Compound
- Position 6 (Q) AGC Assigned as different Element(s) & Adjusted
- Position 7 (Q) SGC Assigned as different Element(s) & Adjusted