

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: Safe Scale
Product Code(s): Safe Scale
Synonym(s): Phosphoric acid/sulfuric acid solution

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Descaler
Uses advised against: For industrial and institutional use only

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Supplier
 VistaServ
 1509 Edgar Place
 Sarasota, FL 34240 USA
 941-925-9277

1.4 Emergency telephone number

24-Hour Emergency: ChemTel, Inc. - (800) 255-3924; +1-813-248-0585

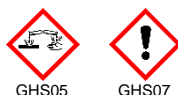
SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture
Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation EC No. 1272/2008
 Acute Toxicity, Oral - Category 4 [H302]
 Skin Corrosion - Category 1B [H314]

2.2 Label elements

Hazard symbol(s):



Signal word: Danger

Hazard statement(s): H302 - Harmful if swallowed
 H314 - Causes severe skin burns and eye damage

Precautionary statements:

[Prevention]

P260 - Do not breathe mist and vapor.
 P264 - Wash hands and other exposed skin areas thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves, protective clothing and eye protection.

[Response]

P301 + P330 + P331 + P310 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Immediately call a POISON CENTER or doctor.
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.
 P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.
 P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON Center or doctor.
 P321 - Specific treatment: Immediately contact a POISON CENTER or doctor. Refer to Section 4 of this SDS.
 P363 - Wash contaminated clothing before reuse.

[Storage]

P405 - Store locked up.

[Disposal]

P501 - Dispose of contents and containers in accordance with national and local regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

May be corrosive to metals

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

| % by Weight | Ingredient | CAS Number | EC Number | Index Number | GHS Classification |
|-------------|-----------------|------------|-----------|--------------|--------------------|
| 3 - 52 | Phosphoric Acid | 7664-38-2 | 231-633-2 | 015-011-00-6 | H314 |
| 0.5 - 3 | Sulfuric Acid | 7664-93-9 | 231-639-9 | 016-020-00-8 | H314 |

There are no additional ingredients present in this product which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product mist or spray causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If irritation persists or if the victim feels unwell, seek medical attention.

Eyes: Immediately flush eyes with large amounts of water or saline solution for at least 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Wash the affected area with soap and water followed by thorough rinsing. Wash contaminated clothing before reuse. Discard contaminated shoes. If irritation persists or in case of chemical burns, seek medical attention.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures if present. Give 2 glasses of water or milk to drink if the victim is conscious, alert and able to swallow. DO NOT induce vomiting unless directed to do so by medical personnel. Vomiting may occur spontaneously. To prevent aspiration of material into the lungs, lay the victim on one side with the head lower than the waist. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Seek immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes severe burns to the eyes and surrounding tissue. May cause irreversible eye damage. Risk of blindness! Mist or spray may cause eye irritation.

Skin: Harmful in contact with skin. Contact with unprotected skin causes immediate and severe irritation of the skin, progressing quickly to chemical burns and ulceration.

Inhalation: Harmful if inhaled. Causes severe irritation of the respiratory system. Symptoms may include burning of the nose and throat, constriction of the airway, difficulty breathing, shortness of breath, bronchial spasms, chest pain, pink, frothy sputum and possible coma. May cause pulmonary edema. Symptoms may be delayed.

Ingestion: Harmful if swallowed. Causes burns to the lips, mouth, throat and gastrointestinal tract. Causes severe pain, nausea vomiting, diarrhea and shock. May cause hemorrhaging of the digestive tract. May cause corrosion and permanent tissue destruction to the digestive tract. Swallowing small quantity of this material will result in serious health hazard.

Chronic: Prolonged or repeated skin contact may cause ulceration of the skin, dermatitis or aggravate existing skin conditions. Chronic eye contact or exposure to mist or spray may cause conjunctivitis and eye damage. Repeated or prolonged inhalation may cause respiratory tract inflammation and damage the lungs. Prolonged and repeated contact will eventually cause permanent tissue damage and effects such as erosion of teeth, lesions on the skin, dermatitis, tracheo-bronchitis, mouth, inflammation, conjunctivitis and gastritis.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to doctor and hospital personnel

Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable methods of extinction: Use extinguishing media suitable for the surrounding fire.

Unsuitable methods of extinction: None known.

5.2 Special hazards arising from the substance or mixture

Closed containers may rupture due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: This product is not considered an explosion hazard.

5.3 Advice to firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. Water contaminated by this material must be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing and equipment designated in Section 8.2. Ventilate the area. Remove all sources of ignition. NO SMOKING. Clean up spills immediately. Spill creates a slip hazard.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements.

6.3 Methods and materials for containment and cleaning up

DO NOT flush large spills down the drain. Approach spill from upwind direction. Cover drains and contain spill. Carefully neutralize material with lime slurry, soda ash, limestone, caustic soda or other alkaline material. Exercise caution during neutralization as considerable heat may be generated. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect material and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches that lead to waterways. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

For indications about waste treatment, see Section 13.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8.2. Do not get in eyes or on skin or clothing. Do not inhale mist or spray. NO SMOKING. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing thoroughly before reuse. Discard contaminated shoes.

Advice on protection against fire and explosion

This product is not considered to be a fire or explosion hazard.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Keep away from combustible materials. Keep away from alkalis. Transfer only to approved containers having correct labeling. Keep containers tightly closed when not in use. Protect containers against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers are hazardous when empty as they contain product residue. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Keep locked up and out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit values

| CAS Number | Ingredient | OSHA PEL | ACGIH TLV | NIOSH |
|------------|-----------------|-------------------------|---|---|
| 7664-38-2 | Phosphoric Acid | 1 mg/m ³ TWA | 1 mg/m ³ STEL | 1 mg/m ³ TWA; 3 mg/m ³ STEL 1,000 mg/m ³ IDLH |
| 7664-93-9 | Sulfuric Acid | 1 mg/m ³ TWA | 2 mg/m ³ TWA; 3 mg/m ³ STEL | 1 mg/m ³ TWA; 15 mg/m ³ IDLH |

8.2 Exposure controls

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear chemical splash goggles and a face shield during use.

Hand protection: Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Skin protection: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory protection: Always use an approved respirator when vapor/aerosols exceed permissible exposure limits. Where risk assessment shows air-purifying respirators are appropriate use a half-mask respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection



* It is recommended that a face shield be worn with splash goggles when handling this product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|--|---|
| Appearance | Clear, green colored liquid |
| Odor | Characteristic |
| Odor Threshold | No data available |
| Molecular Weight | Not applicable |
| Chemical Formula | Not applicable |
| pH | < 1 |
| Freezing/Melting Point | < 0 °C (< 32 °F) [estimated] |
| Boiling Point, Initial | 100 °C (212 °F) |
| Evaporation Rate | No data available |
| Flammability (solid, gas) | Not applicable |
| Flash Point | No data available |
| Autoignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Lower Explosive Limit (LEL) | No data available |
| Upper Explosive Limit (UEL) | No data available |
| Vapor Pressure | No data available |
| Vapor Density | No data available |
| Density | 1.238 - 1.2248 g/ml (10.33 - 10.42 lb/gal) [calculated] |
| Viscosity | No data available |
| Solubility in Water | Complete |
| Partition Coefficient (n-octanol/water) | Not applicable |
| Oxidizing Properties | Not applicable |
| Explosive Properties | Not applicable |
| Volatiles by Weight @ 21 °C | > 96% |

9.2 Other Data

May be corrosive to metals

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

This material is stable under recommended conditions of handling and use.

10.2 Chemical Stability

This material is stable under recommended storage and handling conditions.

10.3 Possibility of hazardous reactions

May generate hydrogen gas in contact with some metals. Hazardous polymerization will not occur.

10.4 Conditions to avoid

Avoid temperature extremes, contact with incompatible materials

10.5 Incompatible materials

Strong bases, caustics, aluminum, copper, mild steel, brass, bronze, alcohols, aldehydes, ketones, glycols, cyanides, sulfides, amines, organic peroxides, halogenated compounds, amides, azo- and diazo- compounds, hydrazines, carbamates, esters, fluorides, mercaptans, phenols, cresols, organophosphates, phosphothioates, epoxides, combustible and flammable materials, nitromethane, sodium tetrahydroborate

10.6 Hazardous decomposition products

Thermal decomposition products may include oxides of carbon, sulfur oxides, hydrogen sulfide gas, phosphorus oxides and phosphine oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity

LD₅₀, rat: 2,801 - 3,106 mg/kg [calculated]

Acute inhalation toxicity

Harmful if inhaled.

Acute dermal toxicity

Harmful in contact with skin.

Skin irritation

Causes skin burns.

Eye irritation

Causes serious eye damage. Risk of blindness!

Sensitization

No data available

Genotoxicity

No data available

Mutagenicity

No data available

Specific organ toxicity - single exposure

May cause respiratory irritation.

Specific organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further information

Sulfuric Acid (contained in strong inorganic acid mists): IARC Group 1 carcinogen - *Carcinogenic to humans*; ACGIH A2 carcinogen - *Suspected human carcinogen*; NTP - *Known carcinogen*; OSHA: Not listed. Workers exposed to sulfuric acid mist showed a statistical increase in laryngeal cancer. This suggests a possible relationship between carcinogenesis and inhalation of sulfuric acid mist.

No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicates it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Large discharges of phosphoric acid to the environment may decrease the pH of aquatic systems to a value <2, which may be fatal to aquatic life and soil micro-organisms. Depending on the concentration, phosphorus compounds may contribute to the eutrophication of water supplies.

12.2 Persistence and degradability

Inorganic substances are not biodegradable. Methods for the determination of biodegradability are not applicable to inorganic substances. While the acidity of this substance is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

12.3 Bioaccumulation potential

This material will not bioaccumulate.

12.4 Mobility in soil

Under acidic soil conditions, sparsely soluble phosphates tend to solubilize and may migrate to water.

12.5 Results of PBT and vPvB assessment

Not applicable to inorganic substances

12.6 Other effects

Additional ecological information

Do not allow material to enter surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Disposal of surplus and non-recyclable products should always comply with the requirements of environmental protection and in accordance with federal, state and local waste disposal regulations. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA F-Series: No listings above the reportable threshold (de minimis)

RCRA U-Series: No listings above the reportable threshold (de minimis)

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

Limited quantity for corrosive liquids Packing Group II when inner packagings are not over 1.0 liters (0.3 gallons) net capacity each, packed in a strong outer packaging.

USA DOT (Ground Transportation) - Bulk and Non-bulk

| | |
|--------------------------------|--|
| Proper Shipping Name | Corrosive liquids, n.o.s. (Phosphoric Acid, Sulfuric Acid) |
| Hazard Class | 8 |
| UN/NA | UN1760 |
| Packing Group | III |
| NEAREG | Guide #154 |
| Packaging Authorization | Non-Bulk: 49 CFR 173.203; Bulk: 173.241 |
| Packaging Exceptions | 49 CFR 173.154 |

Drum Label(s)



IMO/IMDG (Water Transportation)

| | |
|-----------------------------|--|
| Proper Shipping Name | Corrosive liquids, n.o.s. (Phosphoric Acid, Sulfuric Acid) |
| Hazard Class | 8 |
| UN/NA | UN1760 |
| Packing Group | III |
| Marine Pollutant | No |
| EMS Number | F-A, S-B |

ICAO/IATA (Air Transportation)

| | |
|-----------------------------|---|
| Proper Shipping Name | Corrosive liquids, n.o.s. (Phosphoric Acid, Sulfuric Acid) |
| Hazard Class | 8 |
| UN/NA | UN1760 |
| Packing Group | III |
| Quantity Limitations | 49 CFR 175.27 and 175.75 - Cargo Aircraft Only: 60 l; Passenger Aircraft: 5 l |

RID/ADR (Rail Transportation)

| | |
|-----------------------------|--|
| Proper Shipping Name | Corrosive liquids, n.o.s. (Phosphoric Acid, Sulfuric Acid) |
| Hazard Class | 8 |
| UN/NA | UN1760 |
| Packing Group | III |

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910-1200.

OSHA Process Safety Management Standard: This product is not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: This product is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

Toxic Substance Control Act (TSCA) Inventory: All substances in this product are listed on the TSCA Inventory. This product is not subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b)) and 1310.4(f)(2)) and Chemical Code Number No listings

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number: No listings

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals: No listings

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories: Acute Health Hazard, Chronic Health Hazard

SARA 313 Information: The following components are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986: Phosphoric Acid (CAS #664-38-2), Sulfuric Acid (CAS #7664-93-9).

SARA 302/304 Extremely Hazardous Substance: Sulfuric Acid (CAS #7664-93-9) is subject to the reporting levels established by these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the components of this product are subject to the reporting levels established by these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains the following CERCLA reportable substance: Phosphoric Acid (CAS #7664-38-2), RQ - 2,267.96 kg (5,000 lbs) Sulfuric Acid (CAS #7664-93-9), RQ - 453.6 kg (1,000 lbs)

Clean Air Act (CAA)

This product does not contain any Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain Class 1 ozone depleters.

This product does not contain Class 2 ozone depleters.

Clean Water Act (CWA)

Sulfuric Acid and Phosphoric Acid are Hazardous Substances listed under the CWA.

This product does not contain Priority Pollutants.

This product does not contain Toxic pollutants.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

⚠️ WARNING: This product may expose you to strong inorganic mist containing sulfuric acid, which is known to the state of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Other U.S. State Inventories

Phosphoric Acid (CAS #7664-38-2) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: CA, DE, ID, MA, MN, NJ, NY, PA, RI, WA, WI.

Sulfuric Acid (CAS #7664-93-9) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants List(s): CA, DE, ID, IL, ME, MA, MN, NC, NJ, NY, PA, RI, WA, WI.

Canada

WHMIS Hazard Classification

Harmful if swallowed

Causes severe skin burns and eye damage

Canadian National Pollutant Release Inventory (NPRI): Sulfuric Acid (CAS #7664-93-3) is listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 1 (low hazard to waters)

Global Chemical Inventory Lists

| Country | Inventory Name | Listed |
|---------------|--|--------|
| Canada | Domestic Substance List (DSL) | Yes |
| Canada | Non-Domestic Substance List (NDSL) | No |
| Europe | Inventory of New and Existing Chemicals (EINECS) | Yes |
| United States | Toxic Substance Control Act (TSCA) | Yes |
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| New Zealand | New Zealand Inventory of Chemicals (NZIoC) | Yes |
| China | Inventory of Existing Chemical Substances in China | Yes |
| Japan | Inventory of Existing and New Chemical Substances | Yes |
| Korea | Existing Chemicals List (KECI) | Yes |
| Philippines | Philippines Inventory of Chemicals and Chemical | Yes |

*Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.

No - One or more components of this product are not on the inventory or are exempt from listing.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

| | | |
|---------------------|---|---|
| HEALTH | * | 3 |
| FLAMMABILITY | | 0 |
| PHYSICAL HAZARD | | 0 |
| PERSONAL PROTECTION | | C |

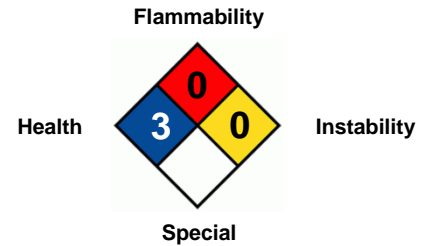
HMIS Hazard Rating Legend

0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe
* = Chronic Health Hazard

NFPA Hazard Rating Legend

0 = Insignificant 1 = Slight 2 = Moderate
3 = High 4 = Extreme

National Fire Protection Association (NFPA)



Abbreviation Key

| | | | |
|-------------------------|---|------------------------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists | LD₅₀ | Lowest Lethal Dose |
| ADR | Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road) | mppcf | Millions of Particles Per Cubic Foot |
| CAS | Chemical Abstract Services | NA | North America |
| CFR | Code of Federal Regulations | NAERG | North American Emergency Response Guide Book |
| COC | Cleveland Open Cup | NIOSH | National Institute for Occupational Safety & Health |
| DOT | Department of Transportation | NTP | National Toxicology Program |
| EC₅₀ | Half maximal effective concentration | OSHA | Occupational Safety and Health Administration |
| EMS | Emergency Response Procedures for Ships Carrying | PBT | Persistent, Bioaccumulating and Toxic |
| EPA | Environmental Protection Agency | PEL | Permissible exposure limit |
| ErC₅₀ | Reduction of Growth Rate | PMCC | Pensky-Martens Closed Cup |
| ERG | Emergency Response Guide Book | ppm | Parts Per Million |
| FDA | Food and Drug Administration | RCRA | Resource Conservation and Recovery Act |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals (GHS) | RID | Dangerous Goods by Rail |
| HCS | Hazard Communication Standard | RQ | Reportable Quantity |
| IARC | International Agency for Research on Cancer | TCC/Tag | Tagliabue Closed Cup |
| IATA | International Air Transport Association | TLV | Threshold Limit Value |
| IC₅₀ | Half Maximal Inhibitory Concentration | TSCA | Toxic Substance Control Act |
| ICAO | International Civil Aviation Organization | TWA | Time-weighted Average |
| IDLH | Immediately Dangerous to Life and Health | UN | United Nations |
| IMDG | International Maritime Dangerous Goods | VOC | Volatile Organic Compounds |
| IMO | International Maritime Organization | vPvB | Very Persistent and Very Bioaccumulating |
| LC₅₀ | 50% Lethal Concentration | WHMIS | Workplace Hazardous Materials Information System |
| LD₅₀ | 50% Lethal Dose | | |

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