




# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Spent Sulfuric Acid</b>
<b>Other means of identification</b>	
<b>SDS number</b>	605-GHS
<b>Synonyms</b>	Spent alkylation acid See section 16 for complete information.
<b>Recommended use</b>	This product is intended for use as a refinery feedstock, fuel or for use in engineered processes. Use in other applications may result in higher exposures and require additional controls, such as local exhaust ventilation and personal protective equipment.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer/Supplier</b>	Valero Marketing & Supply Company and Affiliates One Valero Way San Antonio, TX 78269-6000 210-345-4593
<b>General Assistance</b>	210-345-4593
<b>E-Mail</b>	CorpHSE@valero.com
<b>Contact Person</b>	Industrial Hygienist
<b>Emergency Telephone</b>	24 Hour Emergency 866-565-5220 1-800-424-9300 (CHEMTREC USA)

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 1B
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		

<b>Signal word</b>	Danger
<b>Hazard statement</b>	Causes severe skin burns and eye damage. May cause genetic defects. May cause cancer.
<b>Precautionary statement</b>	
<b>Prevention</b>	Do not breathe dust or mist. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
<b>Response</b>	If swallowed: Rinse mouth. Do not induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor/. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.

## 3. Composition/information on ingredients

### Mixtures

Spent Sulfuric Acid

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Chemical name	CAS number	%
Sulfuric acid	7664-93-9	88 - 92
Distillates (petroleum), alkylate	64741-73-7	6 - 8
Diethyl sulfate	64-67-5	<0.2
Dimethyl sulfate	77-78-1	<0.2

**Composition comments** This product is a blend of sulfuric acid and hydrocarbon produced in a sulfuric acid based petroleum alkylation unit. It may contain approximately 0.5% dialkyl sulfates including dimethyl and diethyl sulfate.  
The alkylation distillates in this product are a complex combination of hydrocarbons produced by distillation of the reaction products of isobutene with mono-olefinic hydrocarbons usually ranging in carbon numbers from C3 through C5. It consists of predominately branched-chain saturated hydrocarbons having carbon numbers in the range of C11 through C17.

#### 4. First-aid measures

**Inhalation** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.

**Skin contact** Wash off immediately with soap and plenty of water. Remove contaminated clothing and shoes. Call a physician or poison control center immediately. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

**Ingestion** Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Do not give mouth-to-mouth resuscitation. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a physician or poison control center.

**Most important symptoms/effects, acute and delayed** Contact with this material will cause burns to the skin, eyes and mucous membranes. Persons with pre-existing respiratory tract, skin and lung (such as asthma) disorders may be aggravated by exposure to this product.

**Indication of immediate medical attention and special treatment needed** In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**General information** If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

#### 5. Fire-fighting measures

**Suitable extinguishing media** Material will not burn. Use fire-extinguishing media appropriate for surrounding materials. This product is an aqueous mixture which will not burn.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** In case of fire, toxic and corrosive gases may be formed. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials.

**Special protective equipment and precautions for firefighters** Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

**Fire-fighting equipment/instructions** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Local authorities should be advised if significant spills cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and materials for containment and cleaning up**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Extinguish all flames in the vicinity. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Small Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Cover with plastic sheet to prevent spreading. Collect spillage. Following product recovery, flush area with water. Prevent product from entering drains. Do not allow material to contaminate ground water system. Clean surface thoroughly to remove residual contamination. Wipe up with absorbent material (e.g. cloth, fleece).

**Environmental precautions**

If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Review Firefighting Measures, Section 5, before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g. by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Use compatible foam to minimize vapor generation as needed. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 1-800-424-8802. For highway or railways spills, contact Chemtrec at 1-800-424-9300.

**7. Handling and storage**

**Precautions for safe handling**

Wear personal protective equipment. Do not breathe mist or vapor. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Avoid prolonged exposure. Use only with adequate ventilation. Wash thoroughly after handling. When using, do not eat, drink or smoke. Avoid release to the environment.

**Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Dimethyl sulfate (CAS 77-78-1)	PEL	5 mg/m3
Sulfuric acid (CAS 7664-93-9)	PEL	1 ppm 1 mg/m3

**ACGIH**

Material	Type	Value	Form
Spent Sulfuric Acid (CAS Mixture)	TWA	0.5 mg/m3	(total dust)

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Dimethyl sulfate (CAS 77-78-1)	TWA	0.1 ppm	
Sulfuric acid (CAS 7664-93-9)	TWA	0.2 mg/m3	Thoracic fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Dimethyl sulfate (CAS 77-78-1)	TWA	0.5 mg/m3 0.1 ppm

## US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sulfuric acid (CAS 7664-93-9)	TWA	1 mg/m3
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	
<b>Exposure guidelines</b>	No exposure standards allocated.	
<b>US - California OELs: Skin designation</b>		
Dimethyl sulfate (CAS 77-78-1)	Can be absorbed through the skin.	
<b>US - Minnesota Haz Subs: Skin designation applies</b>		
Dimethyl sulfate (CAS 77-78-1)	Skin designation applies.	
<b>US - Tennessee OELs: Skin designation</b>		
Dimethyl sulfate (CAS 77-78-1)	Can be absorbed through the skin.	
<b>US ACGIH Threshold Limit Values: Skin designation</b>		
Dimethyl sulfate (CAS 77-78-1)	Can be absorbed through the skin.	
<b>US. NIOSH: Pocket Guide to Chemical Hazards</b>		
Dimethyl sulfate (CAS 77-78-1)	Can be absorbed through the skin.	
<b>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</b>		
Dimethyl sulfate (CAS 77-78-1)	Can be absorbed through the skin.	
<b>Appropriate engineering controls</b>	Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Use only appropriately classified electrical equipment and powered industrial trucks.	
<b>Individual protection measures, such as personal protective equipment</b>		
<b>Eye/face protection</b>	Safety glasses.	
<b>Skin protection</b>		
<b>Hand protection</b>	Wear protective gloves.	
<b>Other</b>	Wear chemical-resistant, impervious gloves. Full body suit and boots are recommended when handling large volumes or in emergency situations. Flame retardant protective clothing is recommended.	
<b>Respiratory protection</b>	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.	
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.	
<b>General hygiene considerations</b>	Consult supervisor for special handling instructions. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.	
<b>9. Physical and chemical properties</b>		
<b>Appearance</b>	Colorless to dark brown, oily liquid.	
<b>Physical state</b>	Liquid.	
<b>Form</b>	Oily liquid.	
<b>Color</b>	Colorless to dark brown.	
<b>Odor</b>	Hydrocarbon.	
<b>Odor threshold</b>	Not available.	
<b>pH</b>	Acidic	
<b>Melting point/freezing point</b>	51.01 °F (10.56 °C)	
<b>Initial boiling point and boiling range</b>	554 °F (290 °C)	
<b>Flash point</b>	Not available.	
<b>Evaporation rate</b>	Not available.	

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<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.84
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Soluble.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

## 10. Stability and reactivity

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Stable under normal temperature conditions and recommended use.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Reducing agents. Organic material. Acids. Water.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Not available.
<b>Inhalation</b>	Not available.
<b>Skin contact</b>	Not available.
<b>Eye contact</b>	Not available.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Not available.
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### Information on toxicological effects

<b>Acute toxicity</b>	Causes skin, eye and respiratory tract burns. Harmful if swallowed. Harmful if inhaled. Vapors and spray mist may irritate throat and respiratory system and cause coughing.
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Components	Species	Test Results
Sulfuric acid (CAS 7664-93-9)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	2140 mg/kg
<b>Skin corrosion/irritation</b>	Hazardous by OSHA criteria. Corrosive effects. Causes irritation.	
<b>Serious eye damage/eye irritation</b>	Risk of serious damage to eyes.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not available.	
<b>Skin sensitization</b>	Irritating to skin. May cause sensitization by skin contact.	
<b>Germ cell mutagenicity</b>	Not available.	

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**Carcinogenicity** May cause cancer.  
The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mists containing sulfuric acid" as a known human carcinogen, (IARC category 1). This classification applies only to mists containing sulfuric acid and not to sulfuric acid or sulfuric acid solutions.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Diethyl sulfate (CAS 64-67-5) 2A Probably carcinogenic to humans.  
Dimethyl sulfate (CAS 77-78-1) 2A Probably carcinogenic to humans.

**NTP Report on Carcinogens**

Diethyl sulfate (CAS 64-67-5) Reasonably Anticipated to be a Human Carcinogen.  
Dimethyl sulfate (CAS 77-78-1) Reasonably Anticipated to be a Human Carcinogen.

**Reproductive toxicity** Not available.

**Specific target organ toxicity - single exposure** Not available.

**Specific target organ toxicity - repeated exposure** Not available.

**Aspiration hazard** Not available.

**Chronic effects** Repeated contact with dilute sulfuric acid solutions can cause dermatitis, and repeated or prolonged inhalation of a mist of sulfuric acid can cause inflammation of the upper respiratory tract, leading to chronic bronchitis. Inhalation of concentrated vapor or mists from hot acid or oleum can cause rapid loss of consciousness with serious damage to lung tissue. Severe exposure may cause a chemical pneumonitis; erosion of the teeth due to exposure to strong acid fumes has been recognized in industry.

**12. Ecological information**

**Ecotoxicity** Not expected to be harmful to aquatic organisms.

Components	Species	Test Results
Sulfuric acid (CAS 7664-93-9)		
<b>Aquatic</b>		
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> ) 42 mg/l, 96 hours

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Partition coefficient n-octanol / water (log Kow)**  
Diethyl sulfate (CAS 64-67-5) 1.14

**Mobility in soil** Not available.

**Other adverse effects** Not available.

**13. Disposal considerations**

**Disposal instructions** Dispose in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Hazardous waste code** Not regulated.

**US RCRA Hazardous Waste U List: Reference**  
Dimethyl sulfate (CAS 77-78-1) U103

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Offer rinsed packaging material to local recycling facilities.

**14. Transport information**

**DOT**

**UN number** UN1832  
**UN proper shipping name** Sulfuric acid, spent  
**Transport hazard class(es)**  
**Class** 8  
**Subsidiary risk** -  
**Packing group** II

**Special precautions for user** Not available.  
**Special provisions** A3, A7, B2, B83, B84, IB2, N34, T8, TP2, TP12  
**Packaging exceptions** None  
**Packaging non bulk** 202  
**Packaging bulk** 242

**IATA**

**UN number** UN1832  
**UN proper shipping name** Sulphuric acid, spent  
**Transport hazard class(es)**  
    **Class** 8  
    **Subsidiary risk** -  
    **Label(s)** 8  
**Packing group** II  
**Environmental hazards** No.  
**ERG Code** 8L  
**Special precautions for user** Not available.

**IMDG**

**UN number** UN1832  
**UN proper shipping name** SULPHURIC ACID, SPENT  
**Transport hazard class(es)**  
    **Class** 8  
    **Subsidiary risk** -  
    **Label(s)** 8  
**Packing group** II  
**Environmental hazards**  
    **Marine pollutant** No.  
**EmS** F-A, S-B  
**Special precautions for user** Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** This product is a liquid and when transported in bulk is covered under MARPOL 73/78 Annex II. This product is listed in the IBC Code.  
 Ship type: 3  
 Pollution category: Y

**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
 Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**  
 Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
 Diethyl sulfate (CAS 64-67-5) LISTED  
 Dimethyl sulfate (CAS 77-78-1) LISTED  
 Sulfuric acid (CAS 7664-93-9) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Sulfuric acid	7664-93-9	1000	1000 lbs		

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Sulfuric acid	7664-93-9	88 - 92
Diethyl sulfate	64-67-5	<0.2
Dimethyl sulfate	77-78-1	<0.2

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Diethyl sulfate (CAS 64-67-5)  
 Dimethyl sulfate (CAS 77-78-1)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Sulfuric acid (CAS 7664-93-9)

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Sulfuric acid (CAS 7664-93-9) 6552

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Sulfuric acid (CAS 7664-93-9) 20 % weight/volumn

**DEA Exempt Chemical Mixtures Code Number**

Sulfuric acid (CAS 7664-93-9) 6552

**US state regulations** WARNING: This product contains a chemical known to the State of California to cause cancer.

**US. Massachusetts RTK - Substance List**

Diethyl sulfate (CAS 64-67-5)  
 Dimethyl sulfate (CAS 77-78-1)  
 Sulfuric acid (CAS 7664-93-9)

**US. New Jersey Worker and Community Right-to-Know Act**

Diethyl sulfate (CAS 64-67-5)  
 Dimethyl sulfate (CAS 77-78-1)  
 Sulfuric acid (CAS 7664-93-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Diethyl sulfate (CAS 64-67-5)  
 Dimethyl sulfate (CAS 77-78-1)  
 Sulfuric acid (CAS 7664-93-9)

**US. Rhode Island RTK**

Diethyl sulfate (CAS 64-67-5)  
 Dimethyl sulfate (CAS 77-78-1)  
 Sulfuric acid (CAS 7664-93-9)

**US. California Proposition 65****US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Diethyl sulfate (CAS 64-67-5)  
 Dimethyl sulfate (CAS 77-78-1)  
 Sulfuric acid (CAS 7664-93-9)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes



Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

Issue date	15-August-2013
Revision date	23-May-2014
Version #	02
Further information	HMIS® is a registered trade and service mark of the NPCA.
NFPA Ratings	



References	EPA: AQUIRE database US. IARC Monographs on Occupational Exposures to Chemical Agents HSDB® - Hazardous Substances Data Bank National Toxicology Program (NTP) Report on Carcinogens ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
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Disclaimer	This material Safety Data Sheet (SDS) was prepared in accordance with 29 CFR 1910.1200 by Valero Marketing & Supply Co., ("VALERO"). VALERO does not assume any liability arising out of product use by others. The information, recommendations, and suggestions presented in this SDS are based upon test results and data believed to be reliable. The end user of the product has the responsibility for evaluating the adequacy of the data under the conditions of use, determining the safety, toxicity and suitability of the product under these conditions, and obtaining additional or clarifying information where uncertainty exists. No guarantee expressed or implied is made as to the effects of such use, the results to be obtained, or the safety and toxicity of the product in any specific application. Furthermore, the information herein is not represented as absolutely complete, since it is not practicable to provide all the scientific and study information in the format of this document, plus additional information may be necessary under exceptional conditions of use, or because of applicable laws or government regulations.
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