SAFETY DATA SHEET

Dilute Sulfuric Acid 60-80%

Olin Corporation (OCAP) encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

SECTION 1. IDENTIFICATION

Product name: Dilute Sulfuric Acid 60-80%
Other means of identification: No data available

Manufacturer or supplier’s details
Company name of supplier: Olin Corporation (OCAP)
Address: 190 Carondelet Plaza, Suite 1530
Clayton MO 63105
Telephone: (423) 336-4850
E-mail address: INFO@OLIN.COM
Local Emergency Contact: +1 800-567-7455
Identified uses: Aluminum production.
Matting agent
Neutralizing agent.
Industrial use as intermediate.
Intermediate in manufacture of inorganic and organic chemicals including fertilizers

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations
Corrosive to metals: Category 1
Skin corrosion: Category 1A
Serious eye damage: Category 1

GHS label elements
Hazard pictograms:

Signal word: Danger

Hazard statements:
May be corrosive to metals.
Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P234 Keep only in original packaging.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/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/doctor.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Components</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sulfuric acid</td>
<td>7664-93-9</td>
<td>&gt;= 60 - &lt;= 80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt;= 20 - &lt;= 40</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

If inhaled : Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

In case of skin contact : Immediate continued and thorough washing in flowing water for at least 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash clothing before reuse. Properly dispose of leather items such as shoes, belts, and watchbands. Suitable emergency safety shower facility should be immediately available.

In case of eye contact : - Wash eyes with plenty of water for 15 minutes at least. Do not forget to remove contact lenses. Suitable emergency eye wash facility should be immediately available.

If swallowed : Do not induce vomiting. Give one cup (8 ounces or 240 ml) of
Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Protection of first-aiders:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).

If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician:

Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help.

Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress.

Repeated exposure to acid fumes or mists may be associated with bleeding, ulceration of nose, mouth and gums and erosion of dental enamel.

If burn is present, treat as any thermal burn, after decontamination.

Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done.

No specific antidote.

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:

This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

Unsuitable extinguishing media:

Do not use water.

Specific hazards during firefighting:

Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Hazardous combustion products:

Fire conditions may cause this product to decompose. Refer to section 10 - Thermal Decomposition.

Further information:

Keep people away. Isolate fire and deny unnecessary entry. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not
available.
This material does not burn. Fight fire for other material that is
burning.
Contain fire water run-off if possible. Fire water run-off, if not
contained, may cause environmental damage.
Review the “Accidental Release Measures” and the “Ecologi-
cal Information” sections of this (M)SDS.

Special protective equipment
for firefighters

Wear positive-pressure self-contained breathing apparatus
(SCBA) and protective fire fighting clothing (includes fire
fighting helmet, coat, trousers, boots, and gloves).
Avoid contact with this material during fire fighting operations.
If contact is likely, change to full chemical resistant fire fighting
clothing with self-contained breathing apparatus. If this is not
available, wear full chemical resistant clothing with self-
contained breathing apparatus and fight fire from a remote
location.
For protective equipment in post-fire or non-fire clean-up sit-
uations, refer to the relevant sections.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emer-
gency procedures

Evacuate area.
Keep upwind of spill.
Spilled material may cause a slipping hazard.
Ventilate area of leak or spill.
Only trained and properly protected personnel must be in-
volved in clean-up operations.
Use appropriate safety equipment. For additional information,
refer to Section 8, Exposure Controls and Personal Protection.
Refer to section 7, Handling, for additional precautionary
measures.

Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways
and/or groundwater. See Section 12, Ecological Information.

Methods and materials for
containment and cleaning up

Small spills:
Dilute with large quantities of water.
Large spills:
Contain spilled material if possible.
Attempt to neutralize by adding materials such as
Soda ash.
Lime.
See Section 13, Disposal Considerations, for additional infor-
mation.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling

Do not get in eyes, on skin, on clothing.
Do not swallow.
Avoid breathing vapor or mist.
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.
See Section 8, EXPOSURE CONTROLS AND PERSONAL
## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfuric acid</td>
<td>7664-93-9</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>3 mg/m³</td>
<td>CA AB OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Thoracic)</td>
<td>0.2 mg/m³</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWAEV</td>
<td>1 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEV</td>
<td>3 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Thoracic particulate matter)</td>
<td>0.2 mg/m³</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

### Engineering measures

- Use engineering controls to maintain airborne level below exposure limit requirements or guidelines.
- If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation.
- Local exhaust ventilation may be necessary for some operations.

### Personal protective equipment

#### Filter type

- The following should be effective types of air-purifying respirators: Acid gas cartridge with particulate pre-filter.

#### Respiratory protection

- Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.
- If there are no applicable exposure limit requirements or guidelines, use an approved respirator.
- Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material.
- For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

#### Hand protection

- Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Viton. Polyethylene. Styrene/butadiene rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Avoid gloves made of: Polyvinyl alcohol ("PVA"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instruc-
SAFETY DATA SHEET

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Eye protection: Use chemical goggles. If exposure causes eye discomfort, use a full-face respirator.

Skin and body protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid.

Colour: Colorless to amber

Odour: Pungent

Odour Threshold: Not available

pH: < 1 (25 °C)

Freezing point: -26.11 °C

Melting point/range: -26.11 °C

Boiling point/boiling range: 176.67 °C

Flash point: Method: closed cup

Evaporation rate: Not available

Flammability (solid, gas): No data available

Self-ignition: The substance or mixture is not classified as pyrophoric.

Upper explosion limit / Upper flammability limit: Not applicable

Lower explosion limit / Lower flammability limit: Not available

Vapour pressure: < 1 mmHg

Relative vapour density: 3.4

Relative density: > 1.67

Solubility(ies):

Water solubility: Not determined

Partition coefficient: n-octanol/water:

Partitioning from water to n-octanol is not applicable.

Auto-ignition temperature: Not available
DECOMPOSITION TEMPERATURE

Viscosity

Viscosity, dynamic

Viscosity, kinematic

EXPLOSIVE PROPERTIES

OXYDIZING PROPERTIES

Molecular weight

NOTE: These are the Reference Points for these Physical Properties listed above, unless otherwise noted in their respective Physical Property value information: Boiling Point at 760 mmHg; Evaporation Rate Butyl Acetate = 1; Relative Vapor Density Air = 1; and Relative Density Water = 1.

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical stability

Possibility of hazardous reactions

Conditions to avoid

Incompatible Materials

Hazardous decomposition products

Note: The physical data presented above are typical values and should not be construed as a specification.
SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute oral toxicity: Remarks: Low toxicity if swallowed. Swallowing may result in burns of the mouth and throat. May be more toxic to humans than in animals.
LD50 (Rat, male and female): 2,140 mg/kg

Acute inhalation toxicity: Remarks: Excessive exposure may cause severe irritation to upper respiratory tract (nose and throat) and lungs. Excessive exposure may cause lung injury. For narcotic effects: No relevant data found.

Acute dermal toxicity: Remarks: Absorption has not been determined due to corrosivity.
Remarks: The dermal LD50 has not been determined.

Components:
Sulfuric acid:
Acute oral toxicity: LD50 (Rat): 2,140 mg/kg Remarks: May be more toxic to humans than in animals.

Acute inhalation toxicity: LC50 (Rat, male and female): 0.375 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity: Remarks: The dermal LD50 has not been determined.

Skin corrosion/irritation

Product:
Result: Causes severe burns.
Remarks: Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.
Remarks: Classified as corrosive to the skin according to DOT guidelines.

Components:
Sulfuric acid:
Result: Causes severe burns.
Remarks: Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.
Remarks: Classified as corrosive to the skin according to DOT guidelines.

Serious eye damage/eye irritation

**Product:**
- **Result:** Corrosive
- **Remarks:** May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Vapor may cause eye irritation experienced as mild discomfort and redness.

**Components:**
- **Sulfuric acid:**
  - **Result:** Corrosive
  - **Remarks:** May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Vapor may cause eye irritation experienced as mild discomfort and redness.

Respiratory or skin sensitisation

**Product:**
- **Remarks:** For skin sensitization: No relevant data found.
- **Remarks:** For respiratory sensitization: No relevant data found.

**Components:**
- **Sulfuric acid:**
  - **Remarks:** For skin sensitization: No relevant data found.
  - **Remarks:** For respiratory sensitization: No relevant data found.

Germ cell mutagenicity

**Product:**
- **Genotoxicity in vitro:** Remarks: No data available for assessment due to technical difficulties with testing.

**Components:**
- **Sulfuric acid:**
  - **Genotoxicity in vitro:** Remarks: No data available for assessment due to technical difficulties with testing.
Carcinogenicity

**Product:**

Remarks: Animal testing did not show any carcinogenic effects.

Remarks: IARC has classified 'Occupational exposure to strong-inorganic-acid mists containing sulfuric acid' as 'carcinogenic to humans (Group 1)'.

**Components:**

**Sulfuric acid:**

Remarks: IARC has classified 'Occupational exposure to strong-inorganic-acid mists containing sulfuric acid' as 'carcinogenic to humans (Group 1)'.

Carcinogenicity - Assessment: Animal testing did not show any carcinogenic effects.

Reproductive toxicity

**Product:**

Effects on fertility: Remarks: No relevant data found.

Effects on foetal development: Remarks: Did not cause birth defects or any other fetal effects in laboratory animals.

**Components:**

**Sulfuric acid:**

Effects on fertility: Remarks: No relevant data found.

Effects on foetal development: Remarks: Did not cause birth defects or any other fetal effects in laboratory animals.

STOT - single exposure

**Product:**

Assessment: Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

**Components:**

**Sulfuric acid:**

Assessment: Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.
Repeated dose toxicity

**Product:**

Remarks: Repeated exposure of workers to sulfuric acid mist may cause characteristic dental changes and chronic inflammation of the eye, mouth, skin and upper respiratory tract, and lung effects.

**Components:**

**Sulfuric acid:**

Remarks: Repeated exposure of workers to sulfuric acid mist may cause characteristic dental changes and chronic inflammation of the eye, mouth, skin and upper respiratory tract, and lung effects.

Aspiration toxicity

**Product:**

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

**Components:**

**Sulfuric acid:**

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

**Product:**

Toxicity to fish:

Remarks: Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested). May decrease pH of aquatic systems to < pH 5 which may be toxic to aquatic organisms.

<table>
<thead>
<tr>
<th>LC50 (Lepomis macrochirus (Bluegill sunfish))</th>
<th>49 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time:</td>
<td>48 h</td>
</tr>
<tr>
<td>Test Type: static test</td>
<td></td>
</tr>
<tr>
<td>Method: Method Not Specified</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LC50 (Lepomis macrochirus (Bluegill sunfish))</th>
<th>16 - 28 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time:</td>
<td>96 h</td>
</tr>
<tr>
<td>Method: Method Not Specified</td>
<td></td>
</tr>
</tbody>
</table>

Toxicity to daphnia and other aquatic invertebrates:

<table>
<thead>
<tr>
<th>EC50 (Daphnia magna (Water flea))</th>
<th>&gt; 100 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time:</td>
<td>48 h</td>
</tr>
<tr>
<td>Test Type: static test</td>
<td></td>
</tr>
<tr>
<td>Method: OECD Test Guideline 202</td>
<td></td>
</tr>
<tr>
<td>Remarks: No data available</td>
<td></td>
</tr>
</tbody>
</table>
Toxicity to algae/aquatic plants: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
   End point: Growth rate inhibition
   Exposure time: 72 h
   Test Type: Static

Toxicity to microorganisms: (activated sludge): > 10 mg/l
   End point: Respiration rates.
   Exposure time: 3 h
   Test Type: static test
   Method: OECD Test Guideline 209

Ecotoxicology Assessment
Chronic aquatic toxicity: This product has no known ecotoxicological effects.

Components:
Sulfuric acid:
Toxicity to fish: Remarks: Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).
   May decrease pH of aquatic systems to < pH 5 which may be toxic to aquatic organisms.
   LC50 (Lepomis macrochirus (Bluegill sunfish)): 49 mg/l
   Exposure time: 48 h
   Test Type: static test
   Method: Method Not Specified.
   LC50 (Lepomis macrochirus (Bluegill sunfish)): 16 - 28 mg/l
   Exposure time: 96 h
   Method: Method Not Specified.

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 100 mg/l
   Exposure time: 48 h
   Test Type: Static
   Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
   End point: Growth rate inhibition
   Exposure time: 72 h
   Test Type: Static

Toxicity to microorganisms: (activated sludge): > 10 mg/l
   End point: Respiration rates.
   Exposure time: 3 h
   Test Type: static test
   Method: OECD Test Guideline 209

Ecotoxicology Assessment
Chronic aquatic toxicity: This product has no known ecotoxicological effects.
Persistence and degradability

Product:
Biodegradability : Remarks: No relevant data found.

Bioaccumulative potential

Components:
Sulfuric acid:
Partition coefficient: n-octanol/water : Remarks: Partitioning from water to n-octanol is not applicable.

Mobility in soil

Product:
Distribution among environmental compartments : Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL.
THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information.
All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.
Regulations may vary in different locations.
Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.
DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number : UN 1830
Proper shipping name : SULPHURIC ACID
Class : 8
Packing group : II
Labels : 8

IATA-DGR
UN/ID No. : UN 1830
Proper shipping name : Sulphuric acid
Class : 8
Packing group : II
Labels : Corrosive
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851

IMDG-Code
UN number : UN 1830
Proper shipping name : SULPHURIC ACID
Class : 8
Packing group : II
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no
Remarks : Stowage category CAcids

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations

TDG
UN number : UN 1830
Proper shipping name : SULFURIC ACID
Class : 8
Packing group : II
Labels : 8
ERG Code : 137
Marine pollutant : no
Remarks : Terrapure Env#+1800-567-7455 # ERAP 2-1502

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

NPRI Components : Sulfuric acid

International Regulations
Montreal Protocol (Ozone Depleting Substances) : Not applicable
Rotterdam Convention (Prior Informed Consent) : Not applicable
Stockholm Convention (Persistent Organic Pollutants) : Not applicable

The components of this product are reported in the following inventories:
TCSI : All intentional components are listed on the inventory, are exempt, or are supplier certified.
TSCA : All substances listed as active on the TSCA Inventory or are
not required to be listed.

AICS : All intentional components are listed on the inventory, are exempt, or are supplier certified.

DSL : All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

ENCS : All intentional components are listed on the inventory, are exempt, or are supplier certified.

ISHL : All intentional components are listed on the inventory, are exempt, or are supplier certified.

KECI : All intentional components are listed on the inventory, are exempt, or are supplier certified.

PICCS : All intentional components are listed on the inventory, are exempt, or are supplier certified.

IECSC : All intentional components are listed on the inventory, are exempt, or are supplier certified.

NZIoC : All intentional components are listed on the inventory, are exempt, or are supplier certified.

CH INV : All intentional components are listed on the inventory, are exempt, or are supplier certified.

Canadian lists
No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Further information
NFPA 704:

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Special hazard

Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CA BC OEL : Canada. British Columbia OEL
SAFETY DATA SHEET

Dilute Sulfuric Acid 60-80%

Version: 4.0
Revision Date: 05-24-2021
SDS Number: 10000001227
Date of last issue: 10-04-2017
Date of first issue: 05-24-2021

CA QC OEL: Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA: 8-hour, time-weighted average
CA AB OEL / TWA: 8-hour Occupational exposure limit
CA AB OEL / STEL: 15-minute occupational exposure limit
CA BC OEL / TWA: 8-hour time weighted average
CA QC OEL / TWAEV: Time-weighted average exposure value
CA QC OEL / STEV: Short-term exposure value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date: 05-24-2021

Olin Corporation (OCAP) urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information
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