



SAFETY DATA SHEET CADMIUM ACID

1. Identification

Product identifier

Product name CADMIUM ACID

Product number 2020/5050

Recommended use of the chemical and restrictions on use

Application Industrial Use

Details of the supplier of the safety data sheet

Supplier SIFCO Applied Surface Concepts
5708 E. Schaaf Road
Independence, Ohio 44131
U.S.A.
Tel.: +1 216-524-0099
Fax: +1 216-524-6331
E-Mail: info@sifcoasc.com

Emergency telephone number

Emergency telephone CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 3 - H331 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Muta. 1B - H340 Carc. 1B - H350 Repr. 1B - H360FD STOT RE 1 - H372

Environmental hazards Aquatic Chronic 2 - H411

Label elements

Pictogram



Signal word

Danger

Hazard statements

H331 Toxic if inhaled.
H314 Causes severe skin burns and eye damage.
H340 May cause genetic defects.
H350 May cause cancer.
H360FD May damage fertility. May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

CADMIUM ACID

Precautionary statements	<p>P260 Do not breathe vapor/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P301+P310 If swallowed: Immediately call a poison center/ doctor.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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Contains CADMIUM SULPHATE, SULFURIC ACID 6.9%

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

CADMIUM SULPHATE 20-25% CAS number: 10124-36-4 M factor (Acute) = 1 M factor (Chronic) = 1
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Muta. 1B - H340 Carc. 1B - H350 Repr. 1B - H360FD STOT RE 1 - H372 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410
SULFURIC ACID 6.9% 5-10% CAS number: 7664-93-9
Classification Skin Corr. 1A - H314 Eye Dam. 1 - H318

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person. Get medical attention.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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Skin Contact Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes and get medical attention.

Eye contact Remove affected person from source of contamination. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

Inhalation Coughing, chest tightness, feeling of chest pressure. High concentrations may be fatal.

Ingestion May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

Skin contact May cause serious chemical burns to the skin.

Eye contact Causes severe burns. May cause serious eye damage.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards Toxic and corrosive gases or vapors.

Advice for firefighters

Protective actions during firefighting Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapors. Provide adequate general and local exhaust ventilation.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage.

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation.

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Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.

Storage class Toxic storage. Corrosive storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

SULFURIC ACID 6.9%

Long-term exposure limit (8-hour TWA): OSHA 1 mg/m³

Long-term exposure limit (8-hour TWA): ACGIH 0.2 mg/m³ thoracic fraction

A2

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A2 = Suspected Human Carcinogen.

Ingredient comments WEL = Workplace Exposure Limits

Exposure controls

Protective equipment



Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

Eye/face protection

Tight-fitting safety glasses.

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Liquid.

Color

Clear liquid.

Odor

No characteristic odor.

pH

pH (concentrated solution): 0-1

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Relative density 1.295-1.305 @ 20°C

Other information Not available.

10. Stability and reactivity

Reactivity There are no known reactivity hazards associated with this product.

Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions Not determined.

Conditions to avoid Avoid contact with the following materials: Acids. Oxidizing agents.

Materials to avoid Strong alkalis. Strong acids.

Hazardous decomposition products None at ambient temperatures.

11. Toxicological information

Information on toxicological effects

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 3.0

Inhalation Vapor from this product may be hazardous by inhalation.

Ingestion Toxic if swallowed. Causes severe burns. May cause chemical burns in mouth, esophagus and stomach.

Skin Contact May cause serious chemical burns to the skin. May cause sensitization or allergic reactions in sensitive individuals.

Eye contact Causes serious eye damage. Immediate first aid is imperative.

Acute and chronic health hazards Causes severe burns. May cause cancer.

Route of exposure Ingestion Inhalation Skin and/or eye contact

Toxicological information on ingredients.

CADMIUM SULPHATE

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

ATE inhalation (gases ppm) 4,500.0

ATE inhalation (vapours mg/l) 11.0

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ATE inhalation
(dusts/mists mg/l) 1.5

SULFURIC ACID 6.9%**Acute toxicity - oral**

Acute toxicity oral (LD₅₀
mg/kg) 2,140.0

Species Rat

ATE oral (mg/kg) 2,140.0

12. Ecological information

Ecotoxicity Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

Toxicity No data available.

Ecological information on ingredients.**CADMIUM SULPHATE****Acute aquatic toxicity**

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

SULFURIC ACID 6.9%**Acute aquatic toxicity**

Acute toxicity - fish LC₅₀, 96 hours: 42 mg/l, Fish

Acute toxicity - aquatic
invertebrates EC₅₀, : 29 mg/l, Daphnia magna

Persistence and degradability

Persistence and degradability No data available.

Bioaccumulative potential

Bio-Accumulative Potential The product does not contain any substances expected to be bioaccumulating.

Mobility in soil

Mobility The product is soluble in water.

Other adverse effects

Other adverse effects Not determined.

13. Disposal considerations**Waste treatment methods**

General information Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

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14. Transport information

UN Number

UN No. (TDG)	3289
UN No. (IMDG)	3289
UN No. (ICAO)	3289
UN No. (DOT)	3289

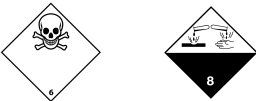
UN proper shipping name

Proper shipping name (TDG)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (CADMIUM SULPHATE, SULPHURIC ACID ...%)
Proper shipping name (IMDG)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (CADMIUM SULPHATE, SULPHURIC ACID ...%)
Proper shipping name (ICAO)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (CADMIUM SULPHATE, SULPHURIC ACID ...%)
Proper shipping name (DOT)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (CADMIUM SULPHATE, SULPHURIC ACID ...%)

Transport hazard class(es)

TDG class	6.1
TDG subsidiary risk	8
TDG label(s)	6.1 & 8
IMDG Class	6.1
IMDG subsidiary risk	8
ICAO class/division	6.1
ICAO subsidiary risk	8

Transport labels



Packing group

TDG Packing Group	II
IMDG packing group	II
ICAO packing group	II
DOT packing group	II

Environmental hazards

Environmentally Hazardous Substance



Special precautions for user

EmS	F-A, S-B
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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

15. Regulatory information

National regulations The customer is advised to check if there are specific local or national regulations specifically applicable to the chemicals contained in the product. The hazards statement for this product is in accordance with international regulations, always observing the most stringent requirements.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Sulfuric Acid 1000 lbs

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Sulfuric Acid
Final CERCLA RQ: 1000 lbs

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Sulfuric Acid
EPCRA RQ: 1000 lbs

SARA 313 Emission Reporting

Cadmium Sulphate
Sulfuric Acid

CAA Accidental Release Prevention

Exempt.

SARA (311/312) Hazard Categories

Acute
Chronic

OSHA Highly Hazardous Chemicals

Exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Cadmium Sulphate

California Directors List of Hazardous Substances

Cadmium Sulphate
Sulfuric Acid

Inventories

US - TSCA

All ingredients are present.

16. Other information

CADMIUM ACID

Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Carc. = Carcinogenicity Eye Dam. = Serious eye damage Eye Irrit. = Eye irritation Flam. Liq. = Flammable liquid Muta. = Germ cell mutagenicity Repr. = Reproductive toxicity Resp. Sens. = Respiratory sensitisation Skin Corr. = Skin corrosion Skin Irrit. = Skin irritation Skin Sens. = Skin sensitisation STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure
Revision date	8/28/2018
Revision	3
Hazard statements in full	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H331 Toxic if inhaled. H332 Harmful if inhaled. H340 May cause genetic defects. H350 May cause cancer. H360FD May damage fertility. May damage the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.
NFPA - health hazard	Extremely hazardous, serious injury. (3)
NFPA - flammability hazard	Will not burn. (0)
NFPA - instability hazard	Normally stable. (0)

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisfy itself as to the suitability of the product.