

CIP ACID

SECTION 1. IDENTIFICATION

Product Identifier CIP ACID
Other Means of Identification Code: 1401
Recommended Use Cleaning product.
Restrictions on Use Reserved for industrial and professional use.
Manufacturer/Supplier Identifier Epsilon Chemicals Ltd., 1926-94 Street N.W., Edmonton, Alberta, T6N1J3, (780) 438-3040
Emergency Phone No. CANUTEC, (613) 996-6666, 24/7

SECTION 2. HAZARD IDENTIFICATION

Classification

Oxidizing liquid - Category 2; Acute toxicity (Oral) - Category 4; Acute toxicity (Inhalation) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1

Label Elements



Signal Word:
Danger

Hazard Statement(s):

May intensify fire; oxidizer.
Harmful if swallowed.
May be harmful if inhaled.
Corrosive to the respiratory tract.
Causes severe skin burns and eye damage.
Causes serious eye damage.

Precautionary Statement(s):

Prevention:
Keep away from heat.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing mist, fume, vapours.
Take any precaution to avoid mixing with combustibles.
Response:
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Give large quantities of water or milk to drink.

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Get immediate medical advice/attention.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Get medical attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Get medical attention.

Storage:

Store locked up in a cool, well-ventilated place away from possible contaminants.

Keep container closed when not in use.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name | CAS No. | % | Other Identifiers | Other Names |
|-----------------|-----------|-------|-------------------|-------------|
| Nitric acid | 7697-37-2 | 30-60 | Not applicable | |
| Phosphoric acid | 7664-38-2 | 5-10 | Not applicable | |

Notes

Concentrations are expressed in % weight/weight.

Nitric acid used is a 67% solution.

Phosphoric Acid used is a 75% solution.

Actual concentrations are withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Keep at rest in a position comfortable for breathing. Get medical attention.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Get medical attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Get medical attention.

Ingestion

Rinse mouth with water. Get immediate medical attention. Give plenty of water to drink. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can cause severe irritation of the nose and throat.

If on skin: contact can cause pain, redness, burns, and blistering. Permanent scarring can result.

If swallowed: can burn the lips, tongue, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea. Risk of stomach perforation, convulsions and coma.

If in eyes: may cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

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Immediate Medical Attention and Special Treatment

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Oxidizer. Does not burn.

Heating increases the release of toxic vapour.

Thermal decomposition liberates toxic and corrosive fumes of phosphorus oxides, nitrogen oxides and hydrogen nitrate.

Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases. Oxidizer. Prevent contact with flammable and combustible materials. Dike and recover contaminated water for appropriate disposal.

Use appropriate certified respirators when facing concentrations above the exposure limit. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Increase ventilation to area or move leaking container to a well-ventilated and secure area. Use appropriate certified respirators when facing concentrations above exposure limit. Remove or isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Do not allow into any sewer, on the ground or into waterway.

Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Small spills or leaks: flush spill area. Large spills or leaks: dike and recover contaminated water for appropriate disposal. Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Soda ash or lime can be used as neutralizing agents if material cannot be salvaged.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not get in eyes, on skin or on clothing. Do not swallow. Wear personal protective equipment to avoid direct contact with this chemical. See Individual Protection Measures in Section 8 (Exposure Controls/Personal Protection).

Immediately remove contaminated clothing using the method that minimizes exposure. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Only use where there is adequate ventilation. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Keep away from clothing and other combustible materials. Keep containers tightly closed when not in use or empty. Never reuse empty containers, even if they appear to be clean. Avoid release to the environment. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

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Store in an area that is: cool, dry, well-ventilated, clear of combustible and flammable materials (e.g. old rags, cardboard), separate from incompatible materials (see Section 10: Stability and Reactivity).

Store in a closed container.

Storage temperature: -30°C to 45°C.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Chemical Name | ACGIH® TLV® | | OSHA PEL | | AIHA® WEEL® | |
|-----------------|-------------|----------|----------|---------|-------------|--------------------|
| | TWA | STEL [C] | TWA | Ceiling | 8-hr TWA | Short-term TWA [C] |
| Nitric acid | 2 ppm | 4 ppm | 2 ppm | 4 ppm | | |
| Phosphoric acid | 1 mg/m3 | 3 mg/m3 | 1 mg/m3 | 3 mg/m3 | | |

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits. TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. C = Ceiling limit.

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots. Remove and wash contaminated clothing before reuse. Gloves should be discarded if there is any indication of degradation.

Respiratory Protection

Use appropriate certified respirators when facing concentrations above the exposure limit.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|--|---|
| Appearance | Clear colourless liquid. |
| Odour | No particular odour |
| Odour Threshold | Not available |
| pH | < 1.00 |
| Melting Point/Freezing Point | Not available (melting); Not available (freezing) |
| Initial Boiling Point/Range | Not available |
| Flash Point | Not applicable |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not applicable (liquid). |
| Upper/Lower Flammability or Explosive Limit | Not applicable (upper); Not applicable (lower) |
| Vapour Pressure | Not available |
| Vapour Density (air = 1) | 3.4 |
| Relative Density (water = 1) | 1.161 |
| Solubility | Soluble in water |
| Partition Coefficient, n-Octanol/Water (Log Kow) | Not available |
| Auto-ignition Temperature | Not applicable |
| Decomposition Temperature | Not available |

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| | |
|--------------------------|--|
| Viscosity | Not available (kinematic); Not available (dynamic) |
| Other Information | |
| Physical State | Liquid |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use. Do not mix with bleach or other chlorinated products – produces chlorine gas.

Conditions to Avoid

High temperatures. Open flames, sparks, static discharge, heat and other ignition sources. Contamination.

Incompatible Materials

Metals (e.g. aluminum), strong bases (e.g. sodium hydroxide), organic materials.
Corrosive to metals.

Hazardous Decomposition Products

Corrosive, oxidizing nitrogen oxides; corrosive phosphorous oxides; hydrogen nitrate; flammable hydrogen gas.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation; eye contact; skin contact.

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|-----------------|---------------------------------------|------------------|---------------------|
| Nitric acid | 334 ppm (rat) (30-minute exposure) | Not available | Not available |
| Phosphoric acid | 1.689 mg/L (rabbit) (1-hour exposure) | 1530 mg/kg (rat) | 2740 mg/kg (rabbit) |

Skin Corrosion/Irritation

Contact can cause pain, redness, burns, and blistering. Permanent scarring can result.
Animal tests show skin corrosion. (Nitric acid)

Serious Eye Damage/Irritation

Contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result.

Human experience shows serious eye damage. (Nitric acid)

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Causes severe nose and throat irritation, inflammation of the lungs. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Ingestion

Causes severe irritation or burns to the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Following skin contact: may cause dermatitis. Symptoms may include dry, red, cracked skin (dermatitis).

Carcinogenicity

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| Chemical Name | IARC | NTP | OSHA | ACGIH® |
|-----------------|---------------|------------|------------|----------------|
| Nitric acid | Not evaluated | Not Listed | Not Listed | Not designated |
| Phosphoric acid | Not evaluated | Not Listed | Not Listed | Not designated |

Conclusions cannot be drawn from the limited studies available.

Key to Abbreviations

IARC = International Agency for Research on Cancer. NTP = National Toxicology Program. OSHA = US Occupational Safety and Health Administration. ACGIH® = American Conference of Governmental Industrial Hygienists.

No information was located for: Aspiration Hazard, Respiratory and/or Skin Sensitization, Development of Offspring, Sexual Function and Fertility, Effects on or via Lactation, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No information was located.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

This product and its container should be disposed of in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

| Regulation | UN No. | Proper Shipping Name | Transport Hazard Class(es) | Packing Group |
|--------------|--------|---------------------------------|----------------------------|---------------|
| US DOT | 1760 | Corrosive liquids (Nitric acid) | 8 | II |
| Canadian TDG | 1760 | Corrosive liquids (Nitric acid) | 8 | II |

Special Precautions Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

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SECTION 16. OTHER INFORMATION

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| SDS Prepared By | Technical Service Department, Epsilon Chemicals |
| Phone No. | (780) 438-3040 |
| Date of Preparation | May 26, 2015 |
| Date of Last Revision | August 14, 2019 |
| References | CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS). |
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