

MATERIAL SAFETY DATA SHEET

MSDS

1. PRODUCT

Trade Name: CALUANIE MUELEAR OXIDIZE

| Other names | CAS # | Molecular Formula | Application |
|-------------|---------|-------------------|--|
| Heavy water | 75-13-8 | HNCO or CHNO | It is used for the refinement of precious metals and semi-precious stones. |

2. HAZARDS IDENTIFICATION

Clear, colorless solution with caustic odor.

R35 – Causes severe burns.

R26 Very toxic for inhalation

S1/2, S9, S16, S30, S28, S36/37, S45

Routes of Entry: Skin, eyes, inhalation and ingestion

3. FIRST AID INFORMATION

Inhalation: Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea. Move casualty to fresh air and keep at rest. Get medical attention if symptoms persist.

Eyes: Contact rapidly causes severe damage. Symptoms include eye burns, watering eyes. Permanent damage to cornea may result. In case of eye contact, rinse with plenty of water and seek medical attention immediately.

Skin: Severe and rapid corrosion from contact. Extent of damage depends on duration of contact. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues. Harmful if absorbed through skin. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

Ingestion: Do Not Induce Vomiting! Severe and rapid corrosive burns of the mouth, gullet and gastrointestinal tract will result if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain. Wash out mouth with water and give a glass of water or milk. Get medical attention immediately.

4. FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: Not Flammable

Flash Point method: Not Applicable

Autoignition Temperature: Not Applicable

Upper Flame Limit (volume % in air): Not Applicable

Lower Flame Limit (volume % in air): Not Applicable

Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire.

Special fire-fighting procedures: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

Hazardous combustion products: Emits toxic fumes under fire conditions.

Unusual fire and explosion hazards: Material can react with metals to produce flammable hydrogen gas.

5. ACCIDENTAL RELEASE MEASURES

Personal precautions: See section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Cleanup personnel need personal protection from inhalation and skin/eye contact. Evacuate and ventilate the area. Prevent spillage from entering drains. Cautiously add water to spill, taking care to avoid splashing and spattering. Neutralize diluted spill with soda ash or lime. Absorb neutralized spill with inert absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Any release to the environment may be subject to federal/national or local reporting requirements. Dispose of all waste or cleanup materials in accordance with local regulations. Containers, even when empty, will retain residue and vapors.

6. HANDLING AND STORAGE

Normal handling: See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

Storage: Store in cool, dry well-ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Drains for storage or use areas for this material should have retention basins for pH adjustment and dilution of spills.

7. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation: Provide local exhaust, preferably mechanical.

Respiratory protection: If necessary use an approved respirator with acid vapor cartridges.

Eye protection: Wear chemical safety glasses with a face shield for splash protection.

Skin and body protection: Wear neoprene or rubber gloves, apron and other protective clothing appropriate to the risk of exposure.

Other Recommendations: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

8. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical state: Liquid

Odor: Pungent odor, similar to the smell of acetic acid

Density: 1.86 g/cm³

Boiling Point: 31 – 3F (13 – 25 °C)
Solubility in Water: Insoluble
Vapor Pressure: ASTM D323
Percent Volatile: 70-75%
Coefficient of Water/Oil Distribution: Not Determined
Flash Point: 22 F (28°C) Tag Open Cup: 22 F (28°C) Tag Open Cup
Pour Point: -63 C (-81.4 F) D-97
Specific Gravity: 0.8 – 0.32 @ 30 F
PH: Not Applicable
Vapor Density: Greater than 1
VOC: 412 grams/liter (49.5%)
Flammable Limits (Solvent Portion): LEL: 0.6% UEL: 8.0%
Kinematic Viscosity: 2.79-2.96cSt @ 100 F

9. STABILITY AND REACTIVITY

Stability: Stable
Conditions to avoid: Uncontrolled addition of oxidants.
Incompatibility: bases, organic material, metals, carbides, cyanides, chlorates, nitrates, picrates, permanganate, peroxides, zinc iodide, azides, perchlorates, phosphorus.
Hazardous decomposition products: Carbon oxides.
Hazardous polymerization: Will not occur.

10. TOXICOLOGICAL INFORMATION

Acute Effects: See section 4 for symptoms of exposure and effects. Likely routes of exposure are skin, eyes and inhalation.
Target organs: Kidney, liver, mucous membranes, respiratory system, skin, eyes and cardiovascular system.
Acute Toxicity Data:

| |
|---|
| Lowest Published Lethal Doses (LDL/LCL) |
| LDL [Man] Oral; 2857 ug/kg |
| LCL [Human] - Route: Inhalation; Dose: 1280 ppm/30M |
| LCL [Rabbit] - Route: Inhalation; Dose: 4400 |
| ppm/30M LD50 [oral, rat]; 600 mg/kg |
| LC50 [rat]; 3125 (1 hour) |

Chronic Effects: May affect liver, bleeding of nose and gums, nasal and oral mucosal ulceration, conjunctivitis, yellowing of teeth and erosion of tooth enamel, dermatitis.
Teratogenicity: Not Available
Mutagenicity: Not Available
Embryotoxicity: Not Available
Synergistic Products/Effects: Not Available

11. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial): LD50 @ pH of 3 – 3.6
LC80 (72 hours): 56 mg/L (Daphnia Magna)
Persistence and Degradability: Not Available
Bio accumulative Potential: Not Available
Mobility in Soil: Not Available
Other Adverse Effects: Not Available

12. DISPOSAL CONSIDERATIONS

RCRA: Hazardous waste? Yes

RCRA ID number: DOO2

Waste Residues: Carefully dilute with water, neutralize per spill procedures in section 6. Neutralized material may be flushed to sewer (REGULATIONS PERMITTING!) or disposed of through a licensed contractor. Users should review their operations in terms of the applicable federal/nation or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

Product containers: Containers, if thoroughly cleaned, preferably by rinsing three times and handling the rinse water as waste residues, may be disposed of or recycled as non-hazardous waste. Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies before discharging or disposing of waste material.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

CALUANIE Muelear oxidize, Material: Isocyanic acid A-B consists of modulators and activators:

1. HNO₂; 2. HNO₃; 3. HBP; 4. H₂EP₂OF; 5. H; 6. HMNO₄; 7. (HPOS) n; 8. (H₂SiCs) m;
9. H₄SiO; 10. H₂SO

Transportation, storage and precautions: Store in a cool place in its original sealed packaging away from fire at temperatures from -5C to + 25C.

Shelf life: No expiration date.

The material is intended for dissolving and burning out metal oxides. Doesn't burn hands.

Note: This product is intended for civilian use.

13. TRANSPORTATION INFORMATION

DOT: UN1760, 7, pg. II

TDG: UN1760, 7, pg. II

PIN: Not Available

IDMG: UN1760, 7, pg. II

Marine Pollutant: No

14. REGULATORY INFORMATION

To avoid risks to humans and the environment, the operating instructions must be observed.

15. REGULATORY INFORMATION

Contacts on technical issues of the IMPORTER (Dealer in USA) ensuring the safe handling of the substance

(material):

CALUANIE LAB.

Address: 11316 Dismantle Ct, 95742 | Rancho Cordova,

California

Tel | WhatsApp: +1 (757) 563-4765

Website: caluanielab.com



| | |
|---------------|---|
| Health Hazard | 3 |
| Fire Hazard | 0 |
| Reactivity | 2 |

Protective Equipment:

