

1. Product and Company Identification

Product Codes: 40-4140-XX
Product Name: Deblocking Mix
Product Use: For Research Use Only
Manufacturer Information
Company Name: Glen Research LLC
22825 Davis Drive, #100
Sterling, VA 20164 USA
+1-703-437-6191
Phone Number:
Web Site Address: www.glenresearch.com
Email Address: msds@glenres.com
Information in case of emergency Chemtrec, 800-424-9300; Outside USA +1-703-527-3887

2. Hazards Identification



Pictograms:

Signal Words: Danger

GHS Hazard Statements

H302+312+332: Harmful if swallowed, in contact with skin, or if inhaled.

H314: Causes severe skin burns and eye damage.

H341+351: Suspected of causing genetic defects and cancer.

GHS Precautionary Statements

P103: Read label before use.

P233: Keep container tightly closed.

P260: Avoid breathing vapors.

P270: Do not eat, drink or smoke when using this product.

P271: Use only in a well-ventilated area.

P280: Wear protective gloves / protective clothing / eye protection / face protection.

GHS Response Statements

P301+330: IF SWALLOWED: Rinse mouth with water.

P302+350: IF ON SKIN: Gently wash with soap and water.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so - continue rinsing.

P306+361: IF ON CLOTHING: Remove/Take off immediately contaminated clothing.

P310: Immediately Call a POISON CENTER or doctor/physician.

P362: Wash contaminated clothing before reuse.

GHS Storage and Disposal Phrases

P403+233: Store in a well-ventilated place. Keep container tightly closed.

P501: Dispose of contents / container in a safe way in accordance with all federal, state and local regulations.

Emergency Overview

Corrosive, Suspected Carcinogen, Target organ effect, Harmful by ingestion, Irritant

Target Organs

Eyes, Skin, Respiratory System, Blood, Cardiovascular System, Central Nervous System

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3. Composition/Information on Ingredients

Product Name	CAS #	EC-No	Concentration	M.W.	Formula
Dichloromethane	75-09-2	200-838-9	97%	84.93 g/mol	CH ₂ Cl ₂
Trichloroacetic acid	76-03-9	200-927-2	3%	163.39 g/mol	CHCl ₃ O ₂

4. First Aid Measures

Emergency and First Aid Procedures

If inhaled:

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

In case of skin contact:

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash clothing before reuse. Get medical attention.

If swallowed:

Rinse mouth with water. Do not induce vomiting. Get medical attention.

If in contact with eyes:

Rinse cautiously with water for several minutes. Remove contact lenses if present and safe to do so. Continue rinsing. Get medical attention.

Signs and Symptoms of Exposure

Dichloromethane is metabolized to carbon monoxide that increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood. Acts as a simple asphyxiant by displacing air. Symptoms of exposure include Burning sensation, Cough, Laryngitis, Shortness of breath, Inflammation and edema of the larynx and bronchi, Pneumonitis, Damage to the mucous membranes and upper respiratory tract, eye, and skin. May cause anesthetic effects, Difficulty in breathing, Headache, Dizziness, Nausea, Vomiting, Central Nervous System depression, Tingling sensation, Drowsiness, Convulsions, Conjunctivitis, Irregular breathing. Prolonged or repeated contact with skin may cause defatting and dermatitis. Ingestion may cause gastrointestinal discomfort.

Treatment

Delayed health effects possible. Treat supportively and symptomatically.

5. Fire Fighting Measures

Suitable Extinguishing Media

Use a Class A Extinguisher compatible with surrounding materials. (Dry chemical, carbon dioxide, water or foam).

Special protective equipment for fire fighters

Wear self-contained breathing apparatus (SCBA) for fire fighting if necessary.

Wear protective clothing to prevent contact with skin and eyes.

Flammable Properties and Hazards

Not flammable at ambient temperatures.

6. Accidental Release Measures

Personal Precautions

Avoid breathing vapors. Evacuate personnel to safe areas.

Protective equipment

Use personal protective equipment.

Emergency procedures

Ensure adequate ventilation.

Methods and Material for containment and cleaning up.

Absorb spillage with sand, absorbent pads. Do not let product enter the drain. Wear impermeable gloves, safety glasses and a lab coat when cleaning up the spill. Dispose of absorbent and spillage in compliance with local, state, and federal regulations.

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7. Handling and Storage

Precautions To Be Taken in Handling

Handle using safe laboratory practices. Avoid all direct contact.

Recommended Storage

Controlled room temperature.

Precautions To Be Taken in Storing

Keep container tightly closed. Store in well-ventilated place.

Other Precautions

Protect from sunlight.

8. Exposure Controls/Personal Protection

Product Name	CAS #	OSHA PEL (TWA)	ACGIH TLV	OSHA (STEL)
Dichloromethane	75-09-2	25ppm	50ppm	125ppm
Trichloroacetic acid	76-03-9	N/A	1 ppm	N/A

Engineering Controls (Ventilation etc.)

Local exhaust ventilation is usually sufficient.

Respiratory Equipment (Specify Type)

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU) based on risk assessment of activities. Cartridge type respirators are not appropriate for use with dichloromethane.

Eye Protection

Safety glasses with side shields. Wear splash resistant goggles or face shield if splashes are likely to occur. Do not wear contact lenses when working with this product.

Protective Gloves

Impermeable, chemically resistant gloves.

Other Protective Clothing

Lab coat, chemical resistant lab coat, protective chemical suit, based on risk assessment of activities.

Work/Hygienic/Maintenance Practices

Wash hands after handling. Do not eat, drink, or smoke when using this product.

9. Physical and Chemical Properties

Physical State:	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Solid
Appearance:	Liquid, clear
Odor:	Sweet mild odor
Odor Threshold:	214 ppm (Dichloromethane)
pH:	No data
Melting Point:	No data
Initial Boiling Point and Boiling Range:	No data
Flash Point:	Does not flash
Specific Gravity:	1.312 g/mL
Evaporation Rate:	No data
Flammability:	No data
Explosive Limits:	LEL: No data UEL: No data
Vapor Pressure (vs. Air or mm Hg):	No data
Vapor Density (vs. Air = 1):	No data
Solubility in Water:	Slightly soluble
Partition Coefficient (n-octanol/water):	No data
Auto-ignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity:	No data
Percent Volatile:	97%

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10. Stability and Reactivity

Reactivity

Stable material, hazardous polymerization will not occur.

Chemical Stability: Unstable [] Stable [X]

Possibility of Hazardous Reactions:

None.

Conditions To Avoid - Instability

Heat, flames, and sparks. Protect from extreme heat and cold. Protect from direct sunlight.

Incompatibility - Materials To Avoid

Strong oxidizing reagents, strong acids and bases, alkali metals, aluminum and magnesium powders. May attack some plastics, rubber, and coatings.

Hazardous Decomposition or Byproducts

Hydrogen chloride, carbon monoxide, carbon dioxide, chlorine.

11. Toxicological Information

Route(s) of Entry:

Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes

Acute Toxicity

No data

Skin corrosion/irritation

Severe damage to skin

Serious eye damage/ eye irritation

Severe eye damage

Respiratory or skin sensitization

No data available

Germ Cell mutagenicity

Genotoxicity in vivo (rat, oral)
DNA damage

Carcinogenicity

Product Name	CAS #	NTP	IARC	OSHA
Dichloromethane	75-09-2	Listed	Listed	Listed
Trichloroacetic Acid	76-03-9	Not Listed	Not Listed	Not Listed

IARC – 2B Group 2b: Possibly carcinogenic to humans. (Dichloromethane)

NTP: Reasonably anticipated to be a human carcinogen. (Dichloromethane)

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure (GHS)

No data available

Specific target organ toxicity – repeated exposure (GHS)

No data available

Aspiration hazard

No

Medical Conditions Generally Aggravated By Exposure

Respiratory disorders, Eye disorders, Blood disorders, Kidney disorders, Liver disorders, Neurological disorders, Skin disorders, Heart disease.

To the best of our knowledge, the toxicological properties of this substance have not been investigated. This product should be handled with the usual care when dealing with chemicals.

12. Ecological Information

Ecotoxicity

Pimephales promelas (fathead minnow) 96-hour LC50 310mg/L (Dichloromethane)

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Persistence and degradability

No data available

Bioaccumulative potential

Bioaccumulation of dichloromethane is not anticipated.

Mobility in soil

No data available

Other adverse effects

No data available

13. Disposal Considerations

Waste Disposal Method

Observe all federal, state and local regulations. For Contaminated Packaging - Dispose of in compliance with regulations. Contact a licensed professional waste disposal service for proper disposal. Burn in a chemical incinerator equipped with afterburner and scrubber.

14. Transport Information

LAND TRANSPORT (49CFR)

UN Number – UN2922, Class 8, (6.1), Packing Group III

Proper Shipping Name: Corrosive Liquid N.O.S. (Trichloroacetic acid, Dichloromethane Solution)

Reportable Quantity (RQ) 1000 lbs

Marine Pollutant: No

Poison Inhalation Hazard (PIH): No

AIR TRANSPORT (ICAO/IATA)

UN Number – UN2922, Class 8, (6.1), Packing Group III

Proper Shipping Name: Corrosive Liquid N.O.S. (Trichloroacetic acid, Dichloromethane Solution)

MARINE TRANSPORT (IMDG/IMO)

UN Number – UN2922, Class 8, (6.1), Packing Group III, EMS-No F-A, S-B

Proper Shipping Name: Corrosive Liquid N.O.S. (Trichloroacetic acid, Dichloromethane Solution)

Marine Pollutant: No

15. Regulatory Information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: Dichloromethane, CAS 75-09-2

SARA 311/312

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right to Know Components

Dichloromethane 75-09-2

Trichloroacetic acid 76-03-9

Pennsylvania Right to Know Components

Dichloromethane 75-09-2

Trichloroacetic acid 76-03-9

New Jersey Right to Know Components

Dichloromethane 75-09-2

Trichloroacetic acid 76-03-9

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Dichloromethane 75-09-2

Trichloroacetic acid 76-03-9

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16. Other Information

For all other inquiries about this product contact Glen Research at 1-800-327-GLEN or 1-703-437-6191.

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