

Revision number: 3 Revision date: 08/18/2015

1. IDENTIFICATION

Product name: Product code: 2-Methyl-2-nitropropane M1241

For laboratory research purposes.

Not for drug or household use.

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SAFETY DATA SHEET

Emergency telephone number:

TCI America (8:00am - 5:00pm) PST

Chemical Emergencies:

Transportation Emergencies:

+1-703-527-3887 (International) Responsible department:

Environmental Health Safety and Security

+1-503-286-7624

Chemtrec 24-Hour +1-800-424-9300 (U.S.A.)

+1-503-286-7624

TCI America

Product use: Restrictions on use:

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A] Flammable Solids [Category 1]

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye irritation Causes skin irritation Flammable solid

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal] Wash hands and face thoroughly after handling. Wear protective gloves. Wear eye and face protection. Keep away from heat, sparks, open flames or other hot surfaces. - No smoking. Ground or bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, and equipment. Wear protective gloves, eye protection and face protection. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use dry chemical, CO2, sand, earth, water spray or regular foam to extinguish.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture:

Substance

None

None

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| Components: | 2-Methyl-2-nitropropane |
|---|--|
| Percent: | >98.0%(GC) |
| CAS Number: | 594-70-7 |
| Molecular Weight: | 103.12 |
| Chemical Formula: | $C_4H_9NO_2$ |
| 4. FIRST-AID MEASURES | |
| Inhalation: | Call emergency medical service. Move victim to fresh air. Give artificial respiration if victim is not breathing Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Skin contact: | Call a poison center or doctor if you feel unwell. Remove and wash contaminated clothing before re-use. I case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved an take precautions to protect themselves. |
| Eye contact: | IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Contact with material may irritate or burn eyes. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Ingestion: | Do not induce vomiting with out medical advice. If swallowed, seek medical advice immediately and show the container or label. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place then in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warr and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| Symptoms/effects: | |
| Acute: Delayed: | Redness. No data available |
| Immediate medical attention: | If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. |
| 5. FIRE-FIGHTING MEASURES | |
| Suitable extinguishing media: | Dry chemical, CO ₂ , sand, earth, water spray or regular foam Consult with local fire authorities before attempting large scale fire fighting operations. |
| Specific hazards arising from the che | |
| Hazardous combustion products: Other specific hazards: | These products include: Carbon oxides Nitrogen oxides Closed containers may explode from heat of a fire. |

extinguished. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Move containers from fire area if you can do it without risk.

Special protective equipment for fire-fighters: Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

6. ACCIDENTAL RELEASE MEASURES

| Developed and exclusion of | Avoid context with skin, such and slothing. Keep seens such from and unwind of shill/ack. Use short |
|--------------------------------|--|
| Personal precautions: | Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Use spark- proof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged |
| | |
| | containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn |
| | unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. |
| | Isolate the hazard area and deny entry to unnecessary and unprotected personnel. |
| Personal protective equipment: | Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Dust |
| | respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves |
| | (nitrile). |
| Emergency procedures: | Prevent dust cloud. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in the immediate |
| | area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| | Warn personnel to move away. Prevent entry into sewers, basements or confined areas: dike if needed. |

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE

| Precautions for safe handling: | Avoid inhalation of vapor or mist. Avoid contact with skin and eyes. DO NOT expose to friction or mechanical shock. Avoid formation of dust and aerosols. Keep away from heat and sources of ignition. Use explosion-proof equipment. Use only non-sparking hand tool when handling this product. Ground all equipment containing material. Take measures to prevent build up of electrostatic charge. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition. |
|--------------------------------|--|
| Conditions for safe storage: | Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. |
| Storage incompatibilities: | Combustible substances, Store away from oxidizing agents |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No data available

Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

| Respiratory protection: | Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. |
|---------------------------|---|
| Hand protection: | Wear protective gloves. |
| Eye protection: | Safety glasses. |
| Skin and body protection: | Lab coat. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state (20°C): Form: Color: Odor: Odor threshold: | Solid Crystal White - Slightly pale yellow No data available No data available | | | |
|--|---|--|--|--|
| Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity: | 24°C (Freezing point) (75°F) No data available No data available No data available No data available No data available | pH: Vapor pressure: Vapor density: Dynamic Viscosity: | No data available No data available No data available No data available | |
| Partition coefficient: n-octanol/water (log P _{ow}) | No data available | Evaporation rate: (Butyl Acetate = 1) | No data available | |
| Flash point: Flammability (solid, gas): | 19°C (66°F) No data available | Autoignition tempera Flammability or expl Lower: Upper: | ata available | |

Solubility(ies):

Miscible: Ether, Benzene, Ethanol

10. STABILITY AND REACTIVITY

Reactivity:

Not Available.

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Avoid excessive heat and light.

No data available

No hazardous reactivity has been reported.

Strong bases, Strong oxidizing agents

Stable under recommended storage conditions. (See Section 7)

10. STABILITY AND REACTIVITY

Chemical Stability: Possibility of Hazardous Reactions: Conditions to avoid: Incompatible materials: Hazardous Decomposition Products:

11. TOXICOLOGICAL INFORMATION

| Acute Toxicity: No data available | | | | |
|--|--|--|-------|-------------------------------------|
| Skin corrosion/irritation: No data available | | | | |
| Serious eye damage/irritation: No data available | | | | |
| Respiratory or skin sensitization: No data available | | | | |
| Germ cell mutagenicity: No data available | | | | |
| Carcinogenicity: | | | | |
| No data available | | | | |
| IARC: No data available | NTP: | No data available | OSHA: | No data available |
| Reproductive toxicity: No data available | | | | |
| Routes of Exposure: Symptoms related to exposure: Skin contact may result in inflammation; cha or dry skin. Eye contact may result in rednes Potential Health Effects: Skin and eye contact may result in irritation. Target organ(s): | racterized by itching | ntact, Ingestion, Skin conta , scaling, reddening, or occ | | contact may result in redness, pain |
| 12. ECOLOGICAL INFORMATION | | | | |
| Ecotoxicity Fish: Crustacea: Algae: | No data available No data available No data available | | | |
| Persistence and degradability: Bioaccumulative potential (BCF): Mobillity in soil: Partition coefficient: n-octanol/water (log Pow) Soil adsorption (Koc): Henry's Law: constant (PaM ³ /mol) | No data available No data available No data available No data available No data available No data available | | | |
| 13. DISPOSAL CONSIDERATIONS | | | | |
| Disposal of product: | | | | mply with Federal, State and Local |

 Disposal of product:
 Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.

 Disposal of container:
 Dispose of as unused product. Do not re-use empty containers.

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13. DISPOSAL CONSIDERATIONS

Other considerations:

Observe all federal, state and local regulations when disposing of the substance.

| DOT (US) UN number: UN1993 | Proper Shipping Name: Flammable liquids, n.o.s. | Class or Division: 3 Flammable liquid | Packing Group: II |
|----------------------------------|--|--|----------------------|
| IATA UN number: UN1325 | Proper Shipping Name: Flammable solid, organic, n.o.s. | Class or Division: 4.1 Flammable solid | Packing Group: II |
| IMDG UN number: UN1325 | Proper Shipping Name: Flammable solid, organic, n.o.s. | Class or Division: 4.1 Flammable solid | Packing Group: II |

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.): This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations

| CERCLA Hazardous substance | e and Reportable Quantity: |
|----------------------------|----------------------------|
| SARA 313: | Not Listed |
| SARA 302: | Not Listed |

State Regulations

State Right-to-Know

| Massachusetts | Not Listed |
|----------------------------|------------|
| New Jersey | Not Listed |
| Pennsylvania | Not Listed |
| California Proposition 65: | Not Listed |

Other Information

NFPA Rating:

| Health: | 2 |
|---------------|---|
| Flammability: | 3 |
| Instability: | 0 |

International Inventories

 WHMIS hazard class:
 B4: Flammable Solid.

 D2B: Materials causing other toxic effects. (Toxic)

 209-851-4

16. OTHER INFORMATION

Revision date: 08/18/2015

Revision number: 3

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.

HMIS Classification: Health:

Flammability:

Physical:

2

3

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