

Revision number: 4 Revision date: 08/15/2016

IDENTIFICATION 1.

Product name: Product code:

m-Tolyl Isothiocyanate 10459

For laboratory research purposes.

Not for drug or household use.

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:

Acute Toxicity - Oral [Category 3] Acute Toxicity - Inhalation [Category 3] Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A] Specific Target Organ Toxicity (Single Exposure) [Category 3]

Signal word:

Hazard Statement(s):

Causes serious eye irritation Causes skin irritation Toxic if swallowed Toxic if inhaled May cause respiratory irritation.

Danger!

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal]

SAFETY DATA SHEET

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Emergency telephone number: Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department: TCI** America Environmental Health Safety and Security +1-503-286-7624

and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. Call a poison center or doctor if you feel unwell. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents and container in accordance with US EPA guidelines for the classification and

Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Do not breathe fume, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Wear protective

If swallowed: Immediately call a poison center or doctor. Rinse mouth. If inhaled: Remove person to fresh

air and keep comfortable for breathing. Call a poison center or doctor. 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

determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

gloves. Wear eye and face protection. Avoid breathing fume, mist, vapors or spray.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

| L | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Substance/Mixture: | Substance |
| Components: | m-Tolyl Isothiocyanate |
| Percent: | >98.0%(GC)(T) |
| CAS Number: | 621-30-7 |
| Molecular Weight: | 149.21 |
| Chemical Formula: | C ₈ H ₇ NS |
| Synonyms: | Isothiocyanic Acid m-Tolyl Ester, 3-Methylphenyl Isothiocyanate |
| 4. FIRST-AID MEASURES | |
| Inhalation: | Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. Inhalation of vapors or contact with substance will result in contamination and potential harmful effects. 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 |
| Skin contact: | personnel are aware of the material(s) involved and take precautions to protect themselves. Immediately call a poison center or doctor. Effects of exposure (skin contact) to substance may be delayed. Remove and wash contaminated clothing before re-use. In 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 and take precautions to protect |
| Eye contact: | themselves. 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 response to protect the product the product of the material (s) |
| Ingestion: | involved and take precautions to protect themselves. Toxic if swallowed. Do not induce vomiting with out medical advice. Effects of exposure (ingestion) to substance may be delayed. Call a physician or Poison Control Center immediately. 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 them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. 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. |
| Symptoms/effects: | |
| Acute: Delayed: | Redness. May have effects on the respiratory tract. |
| Immediate medical attention: | WARNING: It might be dangerous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is toxic. 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 or water spray. Consult with local fire authorities before attempting large scale fire fighting operations. |
| Specific hazards arising from the che Hazardous combustion products: | emical These products include: Carbon oxides Nitrogen oxides Sulfur oxides |
| Other specific hazards: | Closed containers may explode from heat of a fire. |
| Special precautions for fire-fighters: Use water spray or fog; do not use stra heated. Move containers from fire area Special protective equipment for fire | |
| Wear positive pressure self-contained b | oreathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations uations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may |
| 6. ACCIDENTAL RELEASE MEA | SURES |

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. 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.

| 6. ACCIDENTAL RELEASE MEASURES | | |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Personal protective equipment: | Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Vapor | |
| | respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile). | |
| Emergency procedures: | Do not clean-up or dispose except under supervision of a specialist. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. 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. | |

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). 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:**

Keep away from living quarters. 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: Do NOT breath gas, fumes, vapor, or spray. Do not ingest. Avoid contact with skin and eyes. 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: Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon). Moisture sensitive. 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: | Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. |
|---------------------------|----------------------------------------------------------------------------------|
| Hand protection: | Wear protective gloves. |
| Eye protection: | Splash goggles. |
| Skin and body protection: | Lab coat. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state (20°C): Form: Color: Odor: Odor threshold: | Liquid Clear Slightly pale yellow - Yellow No data available No data available | | |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------|
| Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity: | No data available 240°C (464°F) No data available 1.11 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): | 105°C (221°F) No data available | Autoignition temper Flammability or exp Lower: Upper: | |
| Solubility(ies): | | | |

10. STABILITY AND REACTIVITY

| Not Available. Moisture sensitive | | | |
|----------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No hazardous rea Exposure to mois Moisture, Strong | activity has been reported. ture. Moisture sensitive. oxidizing agents | | |
| ION | | | |
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| NTP: | No data available | OSHA: | No data available |
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| ss or death. Skin conta ness, pain or dry skin. I | ct may result in inflammation; Eye contact may result in redno | characterized by itchir ess or pain. Inhalation | |
| | Exposure to mois Moisture, Strong No data available | NTP: No data available Inhalation, Eye contact, Ingestion, Skin contact. ss or death. Skin contact may result in inflammation; ness, pain or dry skin. Eye contact may result in reduc | Exposure to moisture. Moisture sensitive. Moisture, Strong oxidizing agents No data available ION INTP: No data available OSHA: Inhalation, Eye contact, Ingestion, Skin contact. Inhalation, Eye contact, Ingestion, Skin contact. as or death. Skin contact may result in inflammation; characterized by itchir ress, pain or dry skin. Eye contact may result in redness or pain. Inhalation ion. Inhalation causes irritation of the lungs and respiratory system. |

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) | No data available No data available No data available No data available |
| Soil adsorption (Koc): Henry's Law: constant (PaM³/mol) | No data available No data available |

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| 13. DISPOSAL CONSIDERATIONS | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |
| Other considerations: | Observe all federal, state and local regulations when disposing of the substance. |

14. TRANSPORT INFORMATION

| DOT (US) UN number: UN2810 | Proper Shipping Name: Toxic, liquids, organic, n.o.s. | Class or Division: 6.1 Toxic material. | Packing Group: III |
|----------------------------------|-----------------------------------------------------------------|--------------------------------------------------|-----------------------|
| IATA UN number: UN2810 | Proper Shipping Name: Toxic liquid, organic, n.o.s. | Class or Division: 6.1 Toxic material. | Packing Group: |
| IMDG UN number: UN2810 | Proper Shipping Name: Toxic liquid, organic, n.o.s. | Class or Division: 6.1 Toxic material. | Packing Group: III |
| EmS number: | F-A, S-A | | |

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

US Federal Regulations

CERCLA Hazardous substance 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:0Flammability:1Instability:0

HMIS Classification:

| Health: | 0 |
|---------------|---|
| Flammability: | 1 |
| Physical: | 0 |

International Inventories

WHMIS hazard class:

EC-No:

D1B: Materials causing immediate and serious toxic effects. (Toxic) D2B: Materials causing other toxic effects. (Toxic) 210-677-6

16. OTHER INFORMATION

Revision date: 08/15/2016 Revision number: 4

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16. OTHER INFORMATION

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 gogles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.