

Revision number: 1 Revision date: 07/06/2018

1. IDENTIFICATION

Product name: Product code:

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

Ferroceneacetic Acid F0406

For laboratory research purposes. Not for drug or household use.

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SAFETY DATA SHEET

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

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: WHMIS 2015:

Signal word:

Hazard Statement(s):

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A]

Warning!

Causes skin irritation Causes serious eye irritation

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention] [Response]

Wash hands and face thoroughly after handling. Wear protective gloves, eye protection. If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or 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 or attention.

Hazards not otherwise classified: [HNOC] None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substance/mixture: |
|--------------------|
| Components: |
| Percent: |
| CAS RN: |
| Molecular Weight: |
| Chemical Formula: |

Substance Ferroceneacetic Acid >97.0%(GC) 1287-16-7 244.07 C₁₂H₁₂FeO₂

| 4. FIRST-AID MEASURES | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| | | | |
| Description of first aid measures Inhalation: | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. | | |
| Skin contact: | Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. | | |
| Eye contact: | 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. | | |
| Ingestion: | Get medical advice/attention if you feel unwell. Rinse mouth. | | |
| Symptoms/effects: | | | |
| Acute: | Redness. | | |
| Delayed: | No data available | | |
| ndication of any immediate medical attended available. | ention: | | |
| Notes to physician: No data available | | | |
| 5. FIRE-FIGHTING MEASURES | | | |
| | Dry shamiaal foom water array carbon diavida | | |
| Suitable extinguishing media: | Dry chemical, foam, water spray, carbon dioxide. | | |
| lazardous combustion products: Dther specific hazards: | These products include: Carbon oxides Metallic oxides Closed containers may explode from heat of a fire. | | |
| Advice for firefighters: | Wear self-contained breathing apparatus if possible. | | |
| 6. ACCIDENTAL RELEASE MEASU | RES | | |
| Personal precautions, protective Use personal protective equipment. Keep people away from and upwind of spill/i equipment and emergency procedures: non-involved personnel should be controlled around the leakage area by roping Environmental precautions: Prevent product from entering drains. | | | |
| Methods and materials for containment and cleaning up: | | | |
| 7. HANDLING AND STORAGE | | | |
| Precautions for safe handling: | Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. | | |
| Conditions for safe storage, including a | Avoid contact with skin, eyes and clothing. nv incompatibilities | | |
| Storage conditions: | Keep container tightly closed. Store in a cool and dark place. | | |
| | Store under inert gas. Store away from incompatible materials such as oxidizing agents. Air-sensitive | | |
| Packaging material: | Comply with laws. | | |
| 8. EXPOSURE CONTROLS / PERSC | NAL PROTECTION | | |
| | | | |
| Appropriate engineering controls: | Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath. | | |
| Personal protective equipment | | | |
| Boopiratory protoction | Dust reaspirator. Follow local and national regulations | | |

| Dust respirator. Follow local and national regulations. |
|-------------------------------------------------------------------|
| Protective gloves. |
| Safety glasses. A face-shield, if the situation requires. |
| Protective clothing. Protective boots, if the situation requires. |
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9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state (20°C): Form: Colour: | Solid Crystal - Powder Yellow - Deep yellow red No data available | | | |
|--------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|--------------------|--|
| Odour: Odor threshold: | No data available | | | |
| Odour threshold: | No data available | | | |
| Melting point/freezing point: | No data available | pH: | No data available | |
| Boiling point/range: | No data available | Vapour pressure: | No data available. | |
| Decomposition temperature: | No data available | Vapour density: | No data available | |
| Relative density: | No data available | Dynamic Viscosity: | No data available | |
| Kinematic viscosity: | No data available | | | |
| Log Pow: | No data available | Evaporation rate(Butyl Acetate=1): | No data available | |
| Flash point: Flammability(solid, gas): | No data available No data available | Autoignition temperature: Flammability or explosive limits: | No data available | |
| Taninabinty(solid, gas). | | Lower: | No data available | |
| | | Upper: | No data available | |
| Solubility(ies): | | | | |
| [Water] | Slightly soluble | | | |
| [Other solvents] | | | | |
| Soluble: | Methanol, Ethanol, Pyridine | | | |
| Slightly soluble: | Ether | | | |
| 10. STABILITY AND REACTI | VITY | | | |
| Reactivity: | No data available | | | |
| Chemical stability: | , | | | |
| Possibility of bazardous reaction | | No special reactivity has been reported | | |

Chemical stability: Possibility of hazardous reactions: Incompatible materials: Hazardous decomposition products: No data available Stable under proper conditions. No special reactivity has been reported. Oxidizing agents Carbon monoxide, carbon dioxide etc

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

Reproductive toxicity: No data available

Target organ(s):

No data available

NTP:

No data available

OSHA: No data available

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12. ECOLOGICAL INFORMATION

| Ecotoxicity: | |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fish: | No data available |
| Crustacea: | No data available |
| Algae: | No data available |
| Persistence / degradability: | No data available |
| Bioaccumulative potential(BCF): | No data available |
| Mobility in soil | No. determination |
| Log Pow: | No data available |
| Soil adsorption (Koc): | No data available |
| Henry's Law (PaM ³/mol): | No data available |
| | |
| 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 |
| Disposal of container: | be allowed to enter the environment, drains, water ways, or the soil. 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) | Non-hazardous for transportation. |
|----------|-----------------------------------|
| IATA | Non-hazardous for transportation. |
| IMDG | Non-hazardous for transportation. |

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.

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US Federal Regulations

| CERCLA Hazardous substance and Reportable Quantity: | | | | | |
|-----------------------------------------------------|------------|------------|----------------------|--|--|
| SARA 313: | | Not Listed | | | |
| SARA 302: | | Not Listed | | | |
| State Regulations | s | | | | |
| State Right-to-Kn | | | | | |
| Massachuse | | Not Listed | | | |
| | 1.5 | Not Listed | | | |
| New Jersey | | | | | |
| Pennsylvania | 3 | Not Listed | | | |
| California Propos | sition 65: | Not Listed | | | |
| Other Information | n | | | | |
| NFPA Rating: | <u>-</u> | | HMIS Classification: | | |
| Health: | 0 | | Health: | | |
| | - | | | | |
| Flammability: | 0 | | Flammability: | | |
| Instability: | 0 | | Physical: | | |
| | | | | | |

International Inventories

16. OTHER INFORMATION

Revision date: 07/06/2018 Revision number: 1

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.