

# TCI AMERICA SAFETY DATA SHEET

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

1. IDENTIFICATION

Product name: Tetrabutylammonium Bis(1,3-dithiole-2-thione-4,5-dithiolato)nickel(III) Complex

Product code: T127

Product use:For laboratory research purposes.Restrictions on use:Not for drug or household use.

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## 2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Sensitization - Respiratory [Category 1]

WHMIS 2015: Sensitization - Skin [Category 1]
Carcinogenicity [Category 1A]

Specific Target Organ Toxicity (Repeated Exposure) [Category 1]

Signal word: Danger!

Hazard Statement(s): May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

May cause cancer

Causes damage to organs through prolonged or repeated exposure: Respiratory System

## Pictogram(s) or Symbol(s):



Precautionary Statement(s):

[Prevention] Obtain special instructions before use. Do not handle until all safety precautions have been read and

understood. Do not breathe dust, fume, mist, vapors or spray. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wash hands and face thoroughly after handling. Wear respiratory protection. Wear protective gloves, protective clothing,

face protection.

[Response] If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice or

attention. Wash contaminated clothing before reuse. If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center

or doctor. If exposed or concerned: Get medical advice or attention.

Store locked up.

[Disposal] Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40

CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified:

[Storage]

[HNOC]

None.

Bis(1,3-dithiole-2-thione-4,5-dithiolato)nickel(III)

Complex

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Tetrabutylammonium Bis(1,3-dithiole-2-thione-4,5-dithiolato)nickel(III) Complex Components:

Percent: >98.0%(T) CAS RN: 68401-88-7 Molecular Weight: 693.83 **Chemical Formula:** C22H36NNiS10

## 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

Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.

Get medical advice/attention.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get Eye contact:

medical advice/attention.

Ingestion: Get medical advice/attention.Rinse mouth.

Symptoms/effects:

No data available Acute:

Delayed: May cause skin sensitization. Possibly carcinogenic to humans.

## Indication of any immediate medical attention:

Not available.

Notes to physician: No data available

## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, water spray, carbon dioxide.

Specific hazards arising from the

chemical:

Hazardous combustion products:

Other specific hazards:

These products include: Carbon oxides Nitrogen oxides Sulfur 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 MEASURES

Personal precautions, protective equipment and emergency procedures:

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area

Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

by roping off, etc.

**Environmental precautions:** 

Methods and materials for containment

and cleaning up:

Prevent product from entering drains.

Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

# 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 closed system if possible. Use a local exhaust if dust or aerosol will be generated.

Avoid all contact!

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a cool and dark place.

Store locked up.

Store away from incompatible materials such as oxidizing agents.

Packaging material: Comply with laws. Bis(1,3-dithiole-2-thione-4,5-dithiolato)nickel(III) Complex

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits:** 

JSOH OELs(TWA): 0.1 mg(Ni)/m<sup>3</sup>

Appropriate engineering controls: Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed

system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators

approved under appropriate government standards and follow local and national regulations.

Hand protection: Impervious gloves.

**Eye protection:** Safety goggles. A face-shield, if the situation requires.

Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid

Form: Crystal - Powder

Colour: Black

Odour:
Odor threshold:
Odor threshold:
No data available
No data available
No data available

Melting point/freezing point:No data availablepH:No data availableBoiling point/range:No data availableVapour pressure:No data availableDecomposition temperature:No data availableVapour density:No data availableRelative density:No data availableDynamic Viscosity:No data available

Relative density: No data available Kinematic viscosity: No data available

Log Pow: No data available Evaporation rate(Butyl No data available

Acetate=1):

Flash point: No data available Autoignition temperature: No data available

Flammability (solid, gas): No data available Flammability or explosive limits:

Lower: No data available
Upper: No data available

Solubility(ies):

[Water] No data available [Other solvents] No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under proper conditions.

Possibility of hazardous reactions: No special reactivity has been reported.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx), Sulfur oxides

## 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: Group 1 (Carcinogenic to NTP: a (Known to be carcinogens).

No data available OSHA:

humans).

# Reproductive toxicity:

No data available

#### Target organ(s):

Causes damage to organs through prolonged or repeated exposure: Respiratory System

# 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** 

Fish: No data available Crustacea: No data available Algae: No data available

Persistence / degradability: Bioaccumulative potential(BCF):

Mobility in soil

No data available No data available

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 be allowed to enter the environment, drains, water ways, or the soil.

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

Disposal of container: Observe all federal, state and local regulations when disposing of the substance. Other considerations:

## 14. TRANSPORT INFORMATION

DOT (US) Non-hazardous for transportation.

<u>IATA</u> Non-hazardous for transportation.

IMDG Non-hazardous for transportation. Bis(1,3-dithiole-2-thione-4,5-dithiolato)nickel(III)
Complex

## 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

MassachusettsNot ListedNew JerseyNot ListedPennsylvaniaNot ListedCalifornia Proposition 65:Not Listed

Other Information

NFPA Rating: HMIS Classification:

 Health:
 2
 Health:
 2

 Flammability:
 0
 Flammability:
 0

 Instability:
 0
 Physical:
 0

#### **International Inventories**

## 16. OTHER INFORMATION

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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.