

# SAFETY DATA SHEET

GHS  
United States

## Section 1. Product and company identification

|                              |   |  |
|------------------------------|---|--|
| <b>Product name</b>          | <b>BUTYL TUADS®</b>   | <u>In case of emergency</u>                                |
| <b>Code</b>                  | 40850   | 1-203-853-1400   |
| <b>Supplier/Manufacturer</b> | Vanderbilt Chemicals, LLC<br>30 Winfield Street<br>Norwalk, CT 06855                            | Chemtrec: 1-800-424-9300<br>Outside US:<br>+1-703-527-3887 |
| <b>Chemical name</b>         | Thioperoxydicarbonic diamide ((H <sub>2</sub> N)C(S)) <sub>2</sub> S <sub>2</sub> , tetrabutyl- |  |
| <b>Synonym</b>               | Disulfide, bis(dibutylthiocarbamoyl); tetrabutylthiuram disulfide                               |  |
| <b>Material uses</b>         | Accelerator.  |  |
| <b>Product type</b>          | Liquid.   |  |

## Section 2. Hazards identification

|   |  |
|---|--|
| <b>OSHA/HCS status</b>                            | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product. |
| <b>Classification of the substance or mixture</b> | Not classified.  |
| <b>GHS label elements</b>                         |  |
| <b>Signal word</b>                                | No signal word.  |
| <b>Hazard statements</b>                          | No known significant effects or critical hazards.  |
| <b>Precautionary statements</b>                   |  |
| <b>Prevention</b>                                 | Not applicable.  |
| <b>Response</b>                                   | Not applicable.  |
| <b>Storage</b>                                    | Not applicable.  |
| <b>Disposal</b>                                   | Not applicable.  |
| <b>Hazards not otherwise classified</b>           | None known.  |

## Section 3. Composition/information on ingredients

**Substance/mixture**                      Substance

| Ingredient name             | CAS number | % by weight |
|-----------------------------|------------|-------------|
| tetrabutylthiuram disulfide | 1634-02-2  | 100         |

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.   |
| <b>Inhalation</b>   | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.   |
| <b>Skin contact</b> | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.  |
| <b>Ingestion</b>    | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | No known significant effects or critical hazards.  |
| <b>Inhalation</b>   | Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| <b>Skin contact</b> | No known significant effects or critical hazards.  |
| <b>Ingestion</b>    | No known significant effects or critical hazards.  |

#### Over-exposure signs/symptoms

|                     |                   |
|---------------------|-------------------|
| <b>Eye contact</b>  | No specific data. |
| <b>Inhalation</b>   | No specific data. |
| <b>Skin contact</b> | No specific data. |
| <b>Ingestion</b>    | No specific data. |

### Indication of immediate medical attention and special treatment needed, if necessary

|                                   |   |
|-----------------------------------|---|
| <b>Notes to physician</b>         | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| <b>Specific treatments</b>        | No specific treatment.  |
| <b>Protection of first-aiders</b> | No action shall be taken involving any personal risk or without suitable training.  |

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

|                                       |   |
|---------------------------------------|---|
| <b>Suitable extinguishing media</b>   | Use an extinguishing agent suitable for the surrounding fire. |
| <b>Unsuitable extinguishing media</b> | None known.   |

**Specific hazards arising from the chemical** In a fire or if heated, a pressure increase will occur and the container may burst.

## Section 5. Fire-fighting measures

### Hazardous thermal decomposition products

Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides

### Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

### Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

#### For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

#### Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

#### Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

#### Large spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8).

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

If crystals are present upon receipt, heat to 45-55°C to liquify.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

### Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: splash goggles

#### Skin protection

##### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

##### Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

##### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

### Personal protective equipment (Pictograms)



## Section 9. Physical and chemical properties

### Appearance

|  |  |
|--|--|
| Physical state                               | Liquid.  |
| Color  | Amber. [Dark]  |
| Odor   | Not available.   |
| Odor threshold                               | Not available.   |
| pH   | Not available.   |
| Melting point                                | Not available.   |
| Boiling point                                | Not available.   |
| Flash point                                  | Closed cup: 123°C (253.4°F) [ASTM D6450]   |
| Burning time                                 | Not applicable.  |
| Burning rate                                 | Not applicable.  |
| Evaporation rate                             | Not available.   |
| Flammability (solid, gas)                    | Not available.   |
| Lower and upper explosive (flammable) limits | Not available.   |
| Vapor pressure                               | Not available.   |
| Vapor density                                | Not available.   |
| Density                                      | 1.06 g/cm <sup>3</sup> [25°C (77°F)]   |
| Relative density                             | 1.06   |
| Solubility                                   | Partially soluble in the following materials: methanol.<br>Insoluble in the following materials: cold water. |
| Solubility in water                          | Not available.   |
| Partition coefficient: n-octanol/water       | Not available.   |
| Auto-ignition temperature                    | Not available.   |
| Decomposition temperature                    | Not available.   |
| SADT   | Not available.   |
| Viscosity                                    | Not available.   |

## Section 10. Stability and reactivity

|                                    |  |
|------------------------------------|--|
| Reactivity                         | No specific test data related to reactivity available for this product or its ingredients.           |
| Chemical stability                 | The product is stable.   |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| Conditions to avoid                | No specific data.  |
| Incompatible materials             | No specific data.  |
| Hazardous decomposition products   | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name     | Result               | Species | Dose       | Exposure |
|-----------------------------|----------------------|---------|------------|----------|
| tetrabutylthiuram disulfide | LD50 Intraperitoneal | Mouse   | 2350 mg/kg | -        |

#### Conclusion/Summary

Ingestion/inhalation of this product may cause unpleasant symptoms if alcohol is consumed within hours of exposure (antabuse effect).

#### Irritation/Corrosion

Not available.

#### Conclusion/Summary

##### Skin

No data available on skin irritation. Product can cause skin discoloration upon repeated or prolonged contact.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Inhalation.

### Potential acute health effects

#### Eye contact

No known significant effects or critical hazards.

#### Inhalation

No known significant effects or critical hazards.

#### Skin contact

No known significant effects or critical hazards.

#### Ingestion

May be harmful if swallowed.

## Section 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

|              |                   |
|--------------|-------------------|
| Eye contact  | No specific data. |
| Inhalation   | No specific data. |
| Skin contact | No specific data. |
| Ingestion    | No specific data. |

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

|                             |                |
|-----------------------------|----------------|
| Potential immediate effects | Not available. |
| Potential delayed effects   | Not available. |

#### Long term exposure

|                             |                |
|-----------------------------|----------------|
| Potential immediate effects | Not available. |
| Potential delayed effects   | Not available. |

#### Potential chronic health effects

Not available.

|                       |   |
|-----------------------|---|
| General               | No known significant effects or critical hazards. |
| Carcinogenicity       | No known significant effects or critical hazards. |
| Mutagenicity          | No known significant effects or critical hazards. |
| Teratogenicity        | No known significant effects or critical hazards. |
| Developmental effects | No known significant effects or critical hazards. |
| Fertility effects     | No known significant effects or critical hazards. |

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route | ATE value  |
|-------|------------|
| Oral  | 2500 mg/kg |

**Other information** Not available.

## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

## Section 12. Ecological information

**Soil/water partition coefficient (K<sub>oc</sub>)** Not available.

**Other adverse effects** No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14. Transport information

| Regulatory information    | UN number      | Proper shipping name | Classes | PG* | Label | Additional information |
|---------------------------|----------------|----------------------|---------|-----|-------|------------------------|
| <b>DOT Classification</b> | Not regulated. | -                    | -       | -   |       | -                      |
| <b>TDG Classification</b> | Not regulated. | -                    | -       | -   |       | -                      |
| <b>ADR/RID Class</b>      | Not regulated. | -                    | -       | -   |       | -                      |
| <b>IMDG Class</b>         | Not regulated. | -                    | -       | -   |       | -                      |
| <b>IATA-DGR Class</b>     | Not regulated. | -                    | -       | -   |       | -                      |

PG\* : Packing group

## Section 15. Regulatory information

**United States inventory (TSCA 8b)** All components are listed or exempted.

**U.S. Federal regulations**

**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined

**SARA 302/304**

**Composition/information on ingredients**

No products were found.

**SARA 304 RQ**

Not applicable.

**SARA 311/312**

**Classification**

Not applicable.



## Section 15. Regulatory information

### Composition/information on ingredients

No products were found.

### State regulations

|                            |                                    |
|----------------------------|------------------------------------|
| <b>Massachusetts</b>       | None of the components are listed. |
| <b>New York</b>            | None of the components are listed. |
| <b>New Jersey</b>          | None of the components are listed. |
| <b>Pennsylvania</b>        | None of the components are listed. |
| <b>California Prop. 65</b> | None of the components are listed. |

### International regulations

|  |  |
|--|--|
| <b>Australia inventory (AICS)</b>                  | All components are listed or exempted. |
| <b>Canada inventory</b>                            | All components are listed or exempted. |
| <b>China inventory (IECSC)</b>                     | All components are listed or exempted. |
| <b>Europe inventory</b>                            | All components are listed or exempted. |
| <b>Japan inventory (ENCS)</b>                      | All components are listed or exempted. |
| <b>Korea inventory (KECI)</b>                      | All components are listed or exempted. |
| <b>New Zealand Inventory of Chemicals (NZIoC)</b>  | All components are listed or exempted. |
| <b>Philippines inventory (PICCS)</b>               | All components are listed or exempted. |
| <b>Taiwan Chemical Substances Inventory (TCSI)</b> | All components are listed or exempted. |

## Section 16. Other information

|  |                         |   |
|--|-------------------------|---|
| <b>Hazardous Material Identification System (U.S.A.)</b> | <b>Health</b>           | 2 |
|  | <b>Flammability</b>     | 1 |
|  | <b>Physical hazards</b> | 0 |
|  |                         |   |

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

### National Fire Protection Association (U.S.A.)



### History

|                               |           |
|-------------------------------|-----------|
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| <b>Version</b>                | 2         |

## Section 16. Other information

### Key to abbreviations

ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

### References

Not available.

### Information contact

**Vanderbilt Global Services, LLC**  
**Corporate Risk Management**  
**1-203-295-2143**

Visit [www.vanderbiltchemicals.com](http://www.vanderbiltchemicals.com) for more information.

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