

# TCI AMERICA SAFETY DATA SHEET

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

## 1. IDENTIFICATION

Product name: Borane - tert-Butylamine Complex

Product code: B1264

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

Company: TCI America 9211 N. Harborgate Street

Portland, OR 97203 U.S.A.

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e-mail:

sales-US@TCIchemicals.com www.TCIchemicals.com

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: Acute Toxicity - Oral [Category 3]

Acute Toxicity - Dermal [Category 3] WHMIS 2015:

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

Signal word: Danger!

Hazard Statement(s): Flammable solid

Toxic if swallowed or in contact with skin

Causes skin irritation Causes serious eye irritation

Pictogram(s) or Symbol(s):



#### Precautionary Statement(s):

[Prevention] Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment.

Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling.

Wear protective gloves, protective clothing, eye protection.

If swallowed: Immediately call a poison center or doctor. Rinse mouth. If on skin: Wash with plenty of [Response]

soap and water. Call a poison center or doctor if you feel unwell. Take off immediately all 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. 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.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Components: Borane - tert-Butylamine Complex

Percent: >95.0%(T) CAS RN: 7337-45-3 Molecular Weight: 86.97 **Chemical Formula:** BH3 · C4H11N

Synonyms: TBAB, tert-Butylamine Borane

## 4. FIRST-AID MEASURES

Description of first aid measures

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical Inhalation:

advice/attention if you feel unwell.

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

Call a POISON CENTER or doctor/physician.

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

Continue rinsing. If eye irritation persists: Get medical advice/attention. Immediately call a PÓISON CENTER or doctor/physician. Rinse mouth.

Ingestion:

Symptoms/effects:

Acute: Redness. Delayed: No data available

#### Indication of any immediate medical attention:

Not available.

Notes to physician: No data available

#### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, dry sand.

Unsuitable extinguishing media: Water

Hazardous combustion products:

These products include: Carbon oxides Nitrogen oxides Borates Other specific hazards: 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:

**Environmental precautions:** 

Methods and materials for containment

and cleaning up:

Prevention of secondary hazards:

Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

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. Do not allow contact with water. Remove all sources of ignition. Fire-extinguishing devices should be

prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

#### 7. HANDLING AND STORAGE

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent Precautions for safe handling:

dispersion of dust. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. 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 contact with skin, eyes and clothing.

Use well-dried equipment. Handle under inert gas. Don't leave used equipment or rag. This product

may ignite if it is left stuck on combustibles such as paper, rags, etc.

Conditions for safe storage, including any incompatibilities

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

> Store under inert gas. Protect from moisture. Store locked up. Store away from incompatible materials such as oxidizing agents.

Air-sensitive

Packaging material: Comply with laws.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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
White - Almost white
Odour:
No data available
Odor threshold:
No data available
No data available
No data available

 Melting point/freezing point:
 99°C (210°F)
 pH:

 Boiling point/range:
 No data available
 Vapour pressure:

 Decomposition temperature:
 No data available
 Vapour density:

 Relative density:
 No data available
 Dynamic Viscosity:

Kinematic viscosity: No data available

Log Pow:No data availableEvaporation rate(ButylNo data available

Acetate=1):

Flash point: No data available Autoignition temperature: 177°C (351°F)

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

Lower: No data available
Upper: No data available

No data available

No data available.

No data available No data available

Solubility(ies):

[Water] No data available

[Other solvents]

Soluble: Methanol

# 10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability:

Possibility of hazardous reactions:

Conditions to avoid:
Incompatible materials:

Stable under proper conditions.

No special reactivity has been reported.

Spark, Open flame, Static discharge, Moisture
Oxidizing agents, Strong acids, Acid chlorides

Hazardous decomposition products: Carbon monoxide, carbon dioxide etc

## 11. TOXICOLOGICAL INFORMATION

RTECS Number: EO3900000

Acute Toxicity:

ipr-mus LD50:16 mg/kg orl-rat LD50:96 mg/kg

skn-rbt LD50:820 mg/kg

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

Target organ(s): No data available

## 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:

Soil adsorption (Koc):

Henry's Law (PaM ³/mol):

No data available
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.

**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: Proper Shipping Name: Class or Division: Subrisk(s): Packing Group:

UN2926 Flammable solids, toxic, organic, n.o.s 4.1 Flammable solid 6.1 Toxic material.

<u>IATA</u>

UN number: Proper Shipping Name: Class or Division: Subrisk(s): Packing Group:

UN2926 Flammable solid, toxic, organic, n.o.s 4.1 Flammable solid 6.1 Toxic material. II

**IMDG** 

UN UN2926 Proper Shipping Name: Class or Division: Subrisk(s): Packing Group:

numb Flammable solid, toxic, organic, n.o.s 4.1 Flammable solid 6.1 Toxic material. II

er:

EmS number: F-A, S-G

# 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 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:2Health:2Flammability:0Flammability:0Instability:0Physical:0

**International Inventories** 

 Canada: DSL
 On DSL

 EC-No:
 230-851-5

# 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.