



# AccuStandard<sup>®</sup>, Inc.

125 Market St., New Haven, CT 06513 USA  
Tel: 203-786-5290 Fax: 203-786-5287

## SAFETY DATA SHEET

### **SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

#### 1.1 - Product Identifiers

Catalog Name: BDE-032N

Description: 2,4',6-Tribromodiphenyl ether

CAS No.: 189084-60-4

#### 1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

#### 1.3 - Supplier Details

Company: AccuStandard, Inc.  
125 Market St.  
New Haven, CT 06513 USA

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

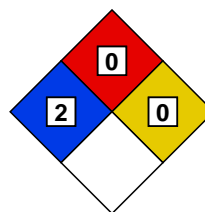
#### 1.4 - Emergency Telephone Number

Emergency Phone #: AccuStandard, Inc.  
1-203-502-7070 (USA)  
+001-203-502-7070 (International)

24 hours / 7 days a week

### **SECTION 2 - HAZARDS IDENTIFICATION**

#### 2.1 - GHS Label Elements



2	HEALTH
0	FLAMMABILITY
0	PHYSICAL HAZARD

**Signal Word: Warning**

#### **Hazard Codes:**

H302 - Harmful if swallowed. (Acute toxicity, oral, category 4)

H312 - Harmful if absorbed through skin. (Acute toxicity, dermal, category 4)

H315 - Irritating to skin. (Skin corrosion/irritation, category 2)

H320 - Irritating to eyes. (Eye damage/irritation, category 2B)

H332 - Harmful if inhaled. (Acute toxicity, inhalation, category 4)

H351 - Suspect cancer hazard. (Carcinogenicity, category 2)

H360, H350 - California Proposition 65 Warning: This product contains a component (or components) that may cause cancer and genetic effects in a concentration greater than or equal to 0.1%.

H371 - May cause kidney and liver damage. (Specific target organ toxicity, single exposure, category 2)

#### **Precautionary Codes:**

**SECTION 2 - HAZARDS IDENTIFICATION** - continued**2.1 - GHS Label Elements** - continued

P202 - This product should only be used by persons trained in the safe handling of hazardous chemicals.

P233 - Store in a tightly closed container. (P404)

P260 - Do not breathe dust.

P262 - Do not get in eyes, on skin or clothing.

P264 - Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

P284 - Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

P338 - Eye contact: Immediately flush with plenty of water. After initial flushing, remove and contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.

P360 - Skin contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**2.2 - Other Hazards****2.2.1 - Symptom of Exposure Health/Environment**

Suspect cancer hazard. (Carcinogenicity, category 2)

Possible teratogenic hazard.

May cause kidney and liver damage. (Specific target organ toxicity, single exposure, category 2)

**2.2.2 - Potential Health Effects**

Irritating to eyes. (Eye damage/irritation, category 2B)

Irritating to skin. (Skin corrosion/irritation, category 2)

Harmful if absorbed through skin. (Acute toxicity, dermal, category 4)

Irritating to mucous membrane and upper respiratory system.

Harmful if inhaled. (Acute toxicity, inhalation, category 4)

Harmful if swallowed. (Acute toxicity, oral, category 4)

**2.2.3 - Routes of Entry**

Inhalation, ingestion or skin contact.

**2.2.4 - Carcinogenicity**

California Proposition 65 cancer hazard.

California Proposition 65 Warning: This product contains a component (or components) that may cause cancer and genetic effects in a concentration greater than or equal to 0.1%.

**SECTION 3 - COMPOSITION / ANALYTES DATA**

Description: 2,4',6-Tribromodiphenyl ether

Synonyms: N/A

Molecular Weight: 406.90

Molecular Formula: C<sub>12</sub>H<sub>7</sub>Br<sub>3</sub>O

**SECTION 3 - COMPOSITION / ANALYTES DATA** - continued

Analyte	CAS #	% Concentration	ACGIH -TLV (mg/m <sup>3</sup> )			OSHA -PEL (mg/m <sup>3</sup> )		
			TWA	STEL	Skin	TWA	STEL	Skin
2,4',6-Tribromodiphenyl ether	189084-60-4	100.000						

**SECTION 4 - FIRST AID MEASURES****4.1 - First Aid Procedures - General**

Get medical assistance for all cases of overexposure.

**4.2 - Eye Contact**

Eye contact: Immediately flush with plenty of water. After initial flushing, remove and contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. (P338)

**4.3 - Skin Contact**

Skin contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse. (P360)

**4.4 - Inhalation**

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

**4.5 - Ingestion**

Ingestion: Call a physician or poison control center immediately. ONLY induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.

**SECTION 5 - FIRE FIGHTING MEASURES****5.1 - Flammable Properties**

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**5.2 - Extinguishing Media**

Use any extinguishing media suitable for adjacent material.

**5.3 - Protection of Firefighters**

As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Fire fighting equipment should be thoroughly cleaned and decontaminated after use.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES****6.1 - Spill Response**

Wear suitable protective equipment listed under Exposure Controls / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Dispose as hazardous waste. Comply with Federal, State and local regulations.

**SECTION 7 - HANDLING AND STORAGE**

Store in a tightly closed container. (P404)

Store at controlled room temperature.

Do not breathe dust. (P260)

**SECTION 7 - HANDLING AND STORAGE** - continued

Use with adequate ventilation.

"Empty" containers retain product residue and can be very dangerous.

Do not get in eyes, on skin or clothing. (P262)

Avoid prolonged or repeated exposure.

This product should only be used by persons trained in the safe handling of hazardous chemicals. (P202)

**SECTION 8 - EXPOSURE CONTROLS****8.1 - Engineering Controls/PPE**

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available. (P264)

**8.2 - General Hygiene Considerations**

Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

Material must be handled or transferred in an approved fume hood or with equivalent ventilation.

Compatible chemical-resistant protective gloves must be worn to prevent skin contact. Inspect gloves prior to use. Use proper glove removal technique to avoid contact with product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash hands thoroughly and dry.

Use eye protection tested and approved under the appropriate government standards such as NIOSH (US) or EN 166 (EU).

Impervious protective clothing should be worn to prevent skin contact.

All recommendations are advisory only and must be evaluated by an industrial hygienist and/or safety officer familiar with the specific situation of anticipated use, such as concentration and amount of the substance in the workplace. Any recommendation should not be construed as offering an approval for any specific use of the product.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Solid

Odor: N/A

Odor Threshold: N/A

pH: N/A

Melting Point: 62-64 °C

Boiling Point: N/A

Flash Point: N/A

Evaporation Rate (Butyl Acetate=1): N/A

Flammability Class: N/A

Lower Flammability Level: N/A

Upper Flammability Level: N/A

Vapor Pressure: N/A

Vapor Density (Air = 1): N/A

Specific Gravity: N/A

Solubility in Water: Insoluble

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES** - *continued*

Partition Coefficient: N/A

Autoignition Temperature: N/A

Decomposition Temperature: N/A

Viscosity: N/A

VOC Content: N/A

Percent Volatile: N/A

**SECTION 10 - STABILITY AND REACTIVITY**

Stability: Stable

Materials to Avoid: Oxidizers

Hazardous Decomposition: Oxides of carbon; Hydrogen bromide

Hazardous Polymerization: Will not occur

Condition to Avoid: Excessive heat

**SECTION 11 - TOXICOLOGICAL INFORMATION****Human Health Toxicity**

See section 2 for specific toxicological information for the ingredients of this product.

LD50 (Oral): N/A

LD50 (Dermal) : N/A

LC50 (Inhalation): N/A

There are no long-term toxicity/carcinogenicity studies for individual PBDE congeners or technical mixtures, however, studies have linked them to reproductive and neurological risks at certain concentrations.

WARNING: This product contains chemical(s) known to the state of California to cause cancer and to cause birth defects or other reproductive harm.

No other information related to the toxicological properties of this product is available at this time.

**SECTION 12 - ECOLOGICAL INFORMATION****Environmental Toxicity**

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

PBDEs enter air, water, and soil during their manufacture and use in consumer products. In air, PBDEs can be present as particles, but eventually settle to soil or water. Sunlight can degrade some PBDEs. PBDEs do not dissolve easily in water, but stick to particles and settle to the bottom of rivers or lakes

No other information related to the ecological properties of this product is available at this time.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

**SECTION 14 - TRANSPORT INFORMATION**

Transportation Information (DOT/IATA)

UN Number: NR

Class: NR

Packing Group: NR

Proper Shipping Name: Not Regulated for Transport

Poison by Inhalation: No

Marine Pollutant: No

**SECTION 15 - REGULATORY INFORMATION**

The CAS number of this product is NOT listed on the TSCA Inventory.

WARNING: This product contains chemical(s) known to the state of California to cause cancer and to cause birth defects or other reproductive harm.

**For laboratory, research and development use only. Not for manufacturing or commercial purposes.**

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

**SECTION 16 - OTHER INFORMATION**

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations. Chemicals are classified using the Globally Harmonized System for Classification and Labeling of Chemicals and CLP Regulation (EC) No. 1272/2008.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

**NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.**

Legend : N/A = Not Available    ND = Not Determined    NR = Not Regulated

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

**HMIS/NFPA HAZARD INDEX**

- 0 - Minimal
- 1 - Slight
- 2 - Moderate
- 3 - Serious
- 4 - Severe

\* - Additional Hazard

**GHS HAZARD INDEX**

- Category 1 - Most Severe
- Category 5 - Least Severe

\*\*\*\* End of Document \*\*\*\*