

Specification Sheet

Chemical Name		CAS No.
Tris(trimethylsilyl) borate		4325-85-3
Testing Parameters	Testing Method	Specification
Appearance	Visual Inspection	Colorless clear liquid
Purity (wt%)	GC	≥99.50



Safety Data Sheet (SDS)**Tris(trimethylsilyl) borate (TMSB)****CAS Number:** 4325-85-3**SECTION 1: IDENTIFICATION**

- **Product Name:** Tris(trimethylsilyl) borate
- **CAS Number:** 4325-85-3
- **Product Number:** 935654
- **Recommended Use:** Laboratory chemical, electrolyte additive, synthesis intermediate
- **Supplier:** Automat Solutions, Inc.
- **Emergency Contact:** 510-982-6488

SECTION 2: HAZARD IDENTIFICATION

- **GHS Classification:**
 - Flammable Liquid – Category 3
 - Skin Irritation – Category 2
 - Eye Irritation – Category 2A
 - STOT (Single Exposure) – Category 3 (Respiratory tract irritation)
- **Signal Word:** Warning
- **Hazard Statements:**
 - H226: Flammable liquid and vapor
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
 - H335: May cause respiratory irritation
- **Precautionary Statements:**
 - P210: Keep away from heat/sparks/open flames
 - P261: Avoid breathing vapors or mist



- P280: Wear protective gloves/eye protection/face protection
- P303+P361+P353: If on skin (or hair): Remove immediately all contaminated clothing. Rinse skin with water
- P305+P351+P338: If in eyes: Rinse cautiously with water. Remove contact lenses. Continue rinsing
- P304+P340+P312: If inhaled: Remove person to fresh air. Call a POISON CENTER if unwell
- P403+P233: Store in a well-ventilated place. Keep container tightly closed
- P501: Dispose of contents/container to an approved waste facility

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% Composition
Tris(trimethylsilyl) borate	4325-85-3	≤ 100%

SECTION 4: FIRST AID MEASURES

- **Inhalation:** Move to fresh air. Seek medical attention if symptoms develop
- **Skin Contact:** Remove contaminated clothing. Wash skin with water/shower
- **Eye Contact:** Rinse cautiously with water. Remove contact lenses. Seek ophthalmologic help
- **Ingestion:** Rinse mouth, give water (two glasses max). Do not induce vomiting. Get medical help

Symptoms: Irritation to eyes, skin, and respiratory tract

SECTION 5: FIRE-FIGHTING MEASURES

- **Extinguishing Media:** Foam, CO₂, dry powder
- **Special Hazards:** May emit CO, boron oxides, and silicon oxides in fire. Vapors may form explosive mixtures
- **Protective Equipment:** SCBA and full protective gear
- **Additional Measures:** Cool container with water. Prevent runoff into water sources



SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Precautions:** Avoid inhalation. Use proper PPE. Ensure ventilation
- **Environmental Precautions:** Prevent product from entering drains—risk of explosion
- **Cleanup:** Absorb with Chemizorb® or inert material. Collect and dispose in compliance with regulations

SECTION 7: HANDLING AND STORAGE

- **Handling:** Use only in enclosed, ventilated systems (e.g., glove box). Avoid ignition sources
- **Storage:** Keep container tightly closed. Store at 2–30 °C in a dry, inert environment. Moisture-sensitive

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- **Exposure Limits:** No established limits
- **Engineering Controls:** Use in a fume hood or glovebox
- **Personal Protective Equipment:**
 - **Eyes:** Safety goggles (NIOSH or EN 166)
 - **Skin:** Protective gloves
 - **Body:** Flame-retardant, antistatic protective clothing
 - **Respiratory:** ABEK filter mask when aerosols/vapors may form

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Clear, colorless liquid
- **Boiling Point:** 186 °C (367 °F)
- **Flash Point:** 41 °C (106 °F) – closed cup
- **Density:** 0.833 g/cm³
- **Water Solubility:** Not available
- **Autoignition Temperature:** Not available



- **Other Properties:** Moisture-sensitive, hygroscopic

SECTION 10: STABILITY AND REACTIVITY

- **Reactivity:** May form explosive vapor/air mixtures when heated
- **Stability:** Stable at room temperature
- **Incompatible Materials:** Strong oxidizing agents, moisture
- **Hazardous Decomposition Products:** CO, boron oxides, silicon oxides

SECTION 11: TOXICOLOGICAL INFORMATION

- **Acute Toxicity:** No data available
- **Skin/Eye Irritation:** Causes irritation
- **Respiratory Effects:** May cause respiratory irritation
- **Carcinogenicity:** Not listed by IARC, NTP, or OSHA
- **Reproductive/Mutagenic Effects:** No data available

SECTION 12: ECOLOGICAL INFORMATION

- **Toxicity:** No data available
- **Persistence & Degradability:** No data available
- **Bioaccumulation:** No data available
- **Mobility in Soil:** No data available
- **PBT/vPvB Assessment:** Not conducted

SECTION 13: DISPOSAL CONSIDERATIONS

- **Waste Disposal:** Dispose in accordance with national/local regulations. Do not mix with other waste.

SECTION 14: TRANSPORT INFORMATION

- **DOT / IMDG / IATA:**
 - **UN Number:** UN1993
 - **Proper Shipping Name:** Flammable Liquid, n.o.s. (Tris(trimethylsilyl) borate)



- **Hazard Class:** 3
- **Packing Group:** III
- **Marine Pollutant:** No

SECTION 15: REGULATORY INFORMATION

- **CERCLA, SARA 302/304/313:** Not subject
- **Massachusetts / Maine / Vermont / Washington CHC Lists:** Not listed
- **TSCA:** Listed, no SNUR or 12(b) export restrictions

SECTION 16: OTHER INFORMATION

- **Revision Date:** May 7, 2025
- **Disclaimer:** This SDS is based on current knowledge and intended for use as a safety guide. Automat Solutions, Inc. is not liable for misuse or improper handling.

