

Section 1. Product and Company Identification

**Product Name** Sodium Triacetoxyborohydride  
**CAS Number** 56553-60-7

**Parchem - fine & specialty chemicals**  
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Section 2. Hazards Identification

**Classification of the substance or mixture**  
**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Flammable solids (Category 2), H228  
Substances and mixtures, which in contact with water, emit flammable gases (Category 2), H261  
Skin irritation (Category 2), H315  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

**GHS Label Elements**

**Pictograms:**



**Signal word:** DANGER

**Hazard and precautionary statements**

**Hazard Statements**

H228 Flammable solid.  
H261 In contact with water releases flammable gases.  
H315 Causes skin irritation.  
H335 May cause respiratory irritation.

**Precautionary Statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.  
P231 + P232 Handle under inert gas. Protect from moisture.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.



- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P332 + P313 If skin irritation occurs: Get medical advice/ attention.
- P335 + P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
- P362 Take off contaminated clothing and wash before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- P402 + P404 Store in a dry place. Store in a closed container.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents/container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC) or not covered by GHS:** Reacts violently with water.

Section 3. Composition / Information on Ingredients

**Common Name** Sodium Triacetoxyborohydride  
**Synonym(s)** Borate(1-), tris(acetato- $\kappa$ .O)hydro-, sodium, (T-4)-  
**Formula**  $C_6H_{10}BNaO_6$   
**CAS Number** 56553-60-7

COMPONENT	CAS NUMBER	CONCENTRATION
Sodium Triacetoxyborohydride	56553-60-7	90 - 100%

Section 4. First Aid Measures

**Description of first-aid measures**  
**General advice:** Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.  
**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
**Skin contact:** Wash off with soap and plenty of water. Consult a physician.  
**Eye contact:** Flush eyes with water as a precaution.  
**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.



**Indication of any immediate medical attention and special treatment needed:** No data available

Section 5. Firefighting Measures

**Extinguishing media**

**Suitable extinguishing media:** Dry powder

**Special hazards arising from the substance or mixture:** Carbon oxides, Borane/boron oxides, Sodium oxides

**Advice for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Further information:** No data available

Section 6. Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.

**Reference to other sections:** For disposal see section 13.

Section 7. Handling and Storage

**Precautions for safe handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Never allow product to get in contact with water during storage.

Section 8. Exposure Controls / Personal Protection

**Control parameters**

**Components with workplace control parameters:** Contains no substances with occupational exposure limit values.

### Exposure controls

**Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

**Eye/face protection:** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection:** Impervious clothing. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

**Appearance:** Solid

**Odor:** No data available

**Odor Threshold:** No data available

**pH:** No data available

**Melting point/freezing point:** 116 - 120°C (241 - 248°F)

**Initial boiling point and boiling range:** No data available

**Flash point:** No data available

**Evaporation rate:** No data available

**Flammability (solid, gas):** The substance or mixture is a flammable solid with the category 2. -  
Flammability (solids)

**Upper/lower flammability or explosive limits:** No data available

**Vapor pressure:** No data available

**Vapor density:** No data available

**Relative density:** 1.43 g/cm<sup>3</sup> at 20.5°C (68.9°F)

**Water solubility:** Decomposes in contact with water.

**Partition coefficient (n-Octanol/Water):** No data available

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Viscosity:** No data available  
**Explosive properties:** No data available  
**Oxidizing properties:** No data available

**Other safety information:** No data available

#### Section 10. Stability and Reactivity

**Reactivity:** Reacts violently with water.  
**Chemical stability:** Stable under recommended storage conditions.  
**Possibility of hazardous reactions:** Reacts violently with water.  
**Conditions to avoid:** Heat, flames and sparks. Extremes of temperature and direct sunlight.  
Exposure to moisture.  
**Incompatible materials:** Strong oxidizing agents, Water, Alcohols, Acids, Keep away from water.

**Hazardous decomposition products**  
**Other decomposition products:** No data available  
In the event of fire: see section 5

#### Section 11. Toxicological Information

##### Information on toxicological effects

**Acute toxicity**  
**LD50 Oral - Rat - male and female:** > 2,000.0 mg/kg  
**Inhalation:** No data available  
**Inhalation:** No data available  
**Dermal:** No data available

##### Skin corrosion/irritation

Skin - Rabbit  
Result: Irritating to skin.

**Serious eye damage/eye irritation:** No data available

##### Respiratory or skin sensitization

Maximization Test (GPMT) - Guinea pig  
Does not cause skin sensitization. (OECD Test Guideline 406)

**Germ cell mutagenicity:** No data available

in vitro assay  
Other cell types  
Result: Negative



### Carcinogenicity

**IARC:** No component of this product, present at levels greater than or equal to 0.1%, is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** No data available

**Specific target organ toxicity - single exposure:** Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure:** No data available

**Aspiration hazard:** No data available

### Additional Information

**RTECS:** Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Section 12. Ecological Information

**Toxicity:** No data available

**Persistence and degradability:** Biodegradability Biochemical oxygen demand - Exposure time 28 d (OECD Test Guideline 301)

Remarks: Readily biodegradable, according to appropriate OECD test.

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects:** No data available

### Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

### Section 14. Transport Information

**DOT (US)**

**UN number:** 1409

**Class:** 4.3



**Packing group:** II  
**Proper shipping name:** Metal Hydrides, Water Reactive, N.O.S.  
**Reportable Quantity (RQ):** N/A  
**Marine pollutant:** No  
**Poison Inhalation Hazard:** No

#### IMDG

**UN number:** 1409  
**Class:** 4.3  
**Packing group:** II  
**EMS-No:** F-G, S-L  
**Proper shipping name:** Metal Hydrides, Water-Reactive, N.O.S. (Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)  
**Marine pollutant:** No

#### IATA

**UN number:** 1409  
**Class:** 4.3  
**Packing group:** II  
**Proper shipping name:** Metal hydrides, water-reactive, n.o.s. (Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)-)

#### Section 15. Regulatory Information

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** Reactivity Hazard, Acute Health Hazard

#### Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right to Know Components

Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)- (CAS-No. 56553-60-7)

#### New Jersey Right to Know Components

Borate(1-), tris(acetato-.kappa.O)hydro-, sodium, (T-4)- (CAS-No. 56553-60-7)

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.



**HMIS Rating**

**Health:** 2

**Flammability:** 3

**Reactivity:** 1

**NFPA Rating**

**Health:** 2

**Flammability:** 3

**Reactivity:** 1

**Special hazard:** W

Section 16. Other Information

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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