



Material Safety Data Sheet

Sodium cyanoborohydride, 95+%

MSDS# 17430

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium cyanoborohydride, 95+%

Catalog Numbers: AC168550000, AC168550100, AC168550500, AC9556139, AC9584945, AC9584951

Synonyms: Sodium cyanotrihydroborate

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA) Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 25895-60-7
Chemical Name: Sodium cyanoborohydride
%: >95.0
EINECS#: 247-317-2

Hazard Symbols:

T F



Risk Phrases:

10 15 23/24/25 32 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Flammable solid. Water-reactive. Causes severe respiratory tract irritation with possible burns. Causes eye and skin irritation and burns. Causes severe digestive tract irritation with possible burns. Toxic if swallowed, inhaled or absorbed through the skin. Target Organs: No data found.

Potential Health Effects

Eye: Causes eye irritation and burns. May cause chemical conjunctivitis.

Skin: May be absorbed through the skin. May be metabolized to cyanide which in turn acts by inhibiting cytochrome oxidase impairing cellular respiration. Causes skin irritation and burns.

Ingestion: May be fatal if swallowed. Poison by ingestion. Causes gastrointestinal tract burns. Ingestion may result in symptoms similar to cyanide poisoning which is characterized by asphyxiation.

Inhalation: May cause respiratory tract irritation. May be metabolized to cyanide which in turns act by inhibiting cytochrome oxidase impairing cellular respiration.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Treat patient as for inhalation.
Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration

Inhalation: using oxygen and a suitable mechanical device such as a bag and a mask. If inhaled, do NOT induce vomiting, and seek medical aid immediately. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water reactive. Material will react with water and may release a flammable and/or toxic gas. Flammable solid. Containers may explode when heated. Substance will react with water (some violently) releasing flammable, toxic, or corrosive gases and runoff.

Extinguishing Media: Use dry chemical to fight fire. Contact professional fire-fighters immediately. DO NOT USE WATER OR FOAM.

Autoignition Temperature: Not available

Flash Point: Not available

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: ; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep under a nitrogen blanket. Store in a cool, dry, well-ventilated area away from incompatible substances. Water free area.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium cyanoborohydride	none listed	none listed	none listed

OSHA Vacated PELs: Sodium cyanoborohydride: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

- Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin: Wear appropriate protective gloves to prevent skin exposure.
- Clothing: Wear appropriate protective clothing to prevent skin exposure.
- Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: white

Odor: Not available

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: >242 deg C dec

Decomposition Temperature: Not available

Solubility in water: Reacts

Specific Gravity/Density:

Molecular Formula: CH₃BNNa

Molecular Weight: 62.84

Section 10 - Stability and Reactivity

- Chemical Stability: Stable.
- Conditions to Avoid: High temperatures, incompatible materials, ignition sources, dust generation, contact with water.
- Incompatibilities with Other Materials: Not available
- Hazardous Decomposition Products: Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide, oxides of boron, borane, hydrogen gas.
- Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

- RTECS#: CAS# 25895-60-7: None listed
- LD50/LC50: RTECS: Not available.
- Carcinogenicity: Sodium cyanoborohydride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
- Epidemiology: Not available
- Teratogenicity: Not available
- Reproductive: Not available
- Neurotoxicity: Not available
- Mutagenicity: Not available
- Other: Not available

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 14 - Transport Information

US DOT

Shipping Name: WATER-REACTIVE SOLID, TOXIC, N.O.S.

Hazard Class: 4.3

UN Number: UN3134

Packing Group: II

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 25895-60-7 is listed on the TSCA Inventory.

Health & Safety Reporting List None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule.

Section 12b None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances None of the chemicals in this product have a TPQ.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters. None of the chemicals in this product are listed as Hazardous Substances under the CWA.

Clean Water Act: None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

STATE Sodium cyanoborohydride is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T F

Risk Phrases:

R 10 Flammable.

R 15 Contact with water liberates extremely flammable gases.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 32 Contact with acids liberates very toxic gas.

R 34 Causes burns.

Safety Phrases:

S 7/8 Keep container tightly closed and dry.

S 25 Avoid contact with eyes.

S 28A After contact with skin, wash immediately with plenty of water.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 25895-60-7: 2

Canada

CAS# 25895-60-7 is listed on Canada's NDSL List

Canadian WHMIS Classifications: B6, D1B, E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 25895-60-7 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: 8/10/1998

Revision #3 Date 10/03/2005

Revisions were made in Sections: General revision.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
