

MATERIAL SAFETY DATA SHEET

1. SUBSTANCE AND SOURCE IDENTIFICATION

National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2300
Gaithersburg, Maryland 20899-2300

SRM Number: 1069b
MSDS Number: 1069b
SRM Name: Sodium Cyclohexanebutyrate

Date of Issue: 30 March 2012

Telephone: 301-975-2200
FAX: 301-948-3730
E-mail: SRMMSDS@nist.gov

Emergency Telephone ChemTrec:
1-800-424-9300 (North America)
+1-703-527-3887 (International)

Description: This Standard Reference Material (SRM) was primarily intended for use in preparing oil solutions with known concentrations of sodium. SRM 1069b is essentially free from other metals and has suitable properties for use with most lubricating oils or petroleum products. A unit of SRM 1069b consists of 5 g of sodium cyclohexanebutyrate powder.

Substance: Sodium Cyclohexanebutyrate

Other Designations: Cyclohexanebutanoic acid, sodium salt; cyclohexanebutyric acid, sodium salt (1)

2. HAZARDS IDENTIFICATION

NFPA Ratings (Scale 0-4): Health = 1 Fire = 0 Reactivity = 0

Major Health Hazards: May be irritating to skin, eyes and respiratory tract.

Physical Hazards: There are no physical hazards associated with this material.

Potential Health Effects (Acute and Chronic)

Inhalation: Inhalation of dust or fumes may cause respiratory tract irritation.

Skin Contact: Exposure may cause irritation and sensitization dermatitis.

Eye Contact: Exposure may cause irritation.

Ingestion: Exposure may cause irritation of the digestive tract.

Listed as a Carcinogen/Potential Carcinogen

In the National Toxicology Program (NTP) Report on Carcinogens

In the International Agency Report on Carcinogens (IARC) Monographs

By the Occupational Safety and Health Administration (OSHA)

Yes

No

X

X

X

3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

Component	CAS Registry	EC Number (EINECS)	Nominal Mass Concentration (%)
Sodium Cyclohexanebutyrate	61886-29-1	263-286-8	100

EC Classification: Not classified.

EC Risk (R No.) and EC Safety (S No.): Not assigned.

4. FIRST AID MEASURES

Inhalation: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

Eye Contact: Flush eyes with copious amounts of water for at least 15 minutes. Get medical attention, if necessary.

Skin Contact: Wash affected area with soap and water for at least 15 minutes. Seek medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Ingestion: If a large amount is swallowed, get medical attention.

5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Negligible fire hazard.

Extinguishing Media: Use extinguishing agents appropriate for surrounding fire.

Fire Fighting: Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH-approved self-contained breathing apparatus (SCBA).

Flash Point: Not applicable.

Autoignition Temp: Not applicable.

Flammability Limits in Air

UPPER (Volume %): Not applicable.

LOWER (Volume %): Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Occupational Release: Collect spilled material in appropriate container for disposal.

Disposal: Refer to Section 13, "Disposal Considerations".

7. HANDLING AND STORAGE

Handling and Storage: Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

Safe Handling Precautions: See Section 8, "Exposure Controls and Personal Protection".

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

OSHA (TWA): 15 mg/m³ (total dust for particulates not otherwise regulated)

OSHA (TWA): 5 mg/m³ (respirable dust for particulates not otherwise regulated)

Ventilation: Use local exhaust ventilation system. Ensure compliance with applicable exposure limits. Refer to the ACGIH document, *Industrial Ventilation, a Manual of Recommended Practices*.

Respirator: If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29 CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

Eye Protection: Wear chemical safety goggles. An eyewash station should be readily available near areas of use.

Personal Protection: Wear appropriate chemical resistant clothing and gloves to prevent skin exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Solid, fine powder; odorless.

Molar Mass (g/mol): 193

Molecular Formula: C₁₀H₁₈O₂Na

Density: Not available.

Melting Point: Not available.

10. STABILITY AND REACTIVITY

Stability: X Stable Unstable

Stable at normal temperatures and pressure.

Conditions to Avoid: Avoid generating dust. Avoid heat, flames, sparks and other sources of ignition.

Incompatible Materials: Oxidizing agents.

Fire/Explosion Information: See Section 5, "Fire Fighting Measures".

Hazardous Decomposition: Miscellaneous decomposition products, oxides of carbon and sodium.

Hazardous Polymerization: Will Occur X Will Not Occur

11. TOXICOLOGICAL INFORMATION

Route of Entry: X Inhalation X Skin Ingestion

Toxicity Data: No toxicity data available.

Health Effects (Acute and Chronic): See Section 2, "Hazards Identification" for potential health effects.

Target Organs: Eyes, skin, respiratory tract.

Mutagen/Teratogen: No endpoints are listed by Registry of Toxic Effects of Chemical Substances (RTECS) for mutagenic, tumorigenic, or reproductive effects.

Medical Conditions Aggravated by Exposure: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Data: No ecotoxicity data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with all applicable federal, state, and local requirements.

14. TRANSPORTATION INFORMATION

U.S. DOT and IATA: This material is not regulated by DOT or IATA.

15. REGULATORY INFORMATION

U.S. REGULATIONS

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated for this material.
SARA Title III Section 302 (40 CFR 355.30): Not regulated for this material.
SARA Title III Section 304 (40 CFR 355.40): Not regulated for this material.
SARA Title III Section 313 (40 CFR 372.65): Not regulated for this material.
OSHA Process Safety (29 CFR 1910.119): Not regulated for this material.
SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE:	No
CHRONIC:	No
FIRE:	No
REACTIVE:	No
SUDDEN RELEASE:	No

STATE REGULATIONS

California Proposition 65: Not listed.

CANADIAN REGULATIONS

WHMIS Classification: Not provided for this material.

EUROPEAN REGULATIONS

EC Classification: Not classified.

EC Risk and EC Safety Phrases: Not assigned.

NATIONAL INVENTORY STATUS

U.S. Inventory (TSCA): Listed.

TSCA 12(b)

Export Notification: Not listed.

16. OTHER INFORMATION

Sources: ChemIDplus Advanced, *Sodium Cyclohexanebutyrate*, CAS No. 61886-29-1, <http://chem.sis.nlm.nih.gov/chemidplus/> (accessed March 2012).

CDC NIOSH, *Particulates not otherwise regulated*, available at <http://www.cdc.gov/niosh/npg/npgd0480.html> (accessed March 2012).

Disclaimer: Physical and chemical data contained in this MSDS are provided only for use in assessing the hazardous nature of the material. The MSDS was prepared carefully, using current references; however, NIST does not certify the data in the MSDS. The certified values for this material are given in the NIST Certificate of Analysis.