SECTION 1: Identification

1.1. Product identifier

Product name: SODIUM DIMETHYLDITHIOCARBAMATE, 40% in water
Product code: AKS736
Product form: Mixture
Physical state: Liquid
Formula: C3H6NNaS2
Synonyms: SODIUM DIMETHYLAMINOCARBODITHIOATE, DIMETHYLDITHIOCARBAMIC ACID, SODIUM SALT, DIMETHYLCARBAMODITHIOIC ACID, SODIUM SALT
Chemical family: METAL CARBOXYLATE

1.2. Recommended use of the chemical and restrictions on use

Recommended use: Chemical intermediate
For research and industrial use only

1.3. Details of the supplier of the safety data sheet

GELEST, INC.
11 East Steel Road
Morrisville, PA 19067
USA
Tel: 215-547-1015 - F: 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelest.com - www.gelest.com

1.4. Emergency telephone number

Emergency number: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification
Serious eye damage/eye irritation Category 2A H319
Hazardous to the aquatic environment - Acute Hazard Category 1 H400
Full text of H statements: see section 16

2.2. Label elements

GHS-US labeling
Hazard pictograms (GHS-US):

- GHS07
- GHS09

Signal word (GHS-US): Warning
Hazard statements (GHS-US): H319 - Causes serious eye irritation
H400 - Very toxic to aquatic life
Precautionary statements (GHS-US):
P280 - Wear protective gloves/protection clothing/eye protection/face protection
P264 - Wash hands thoroughly after handling
P273 - Avoid release to the environment
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P391 - Collect spillage
P501 - Dispose of contents/container to licensed waste disposal facility

2.3. Hazards not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable
SODIUM DIMETHYLDITHIOCARBAMATE, 40% in water
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3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>60-65</td>
<td>Not classified</td>
</tr>
<tr>
<td>Sodium dimethyldithiocarbamate</td>
<td>(CAS No) 128-04-1</td>
<td>35-40</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact: Wash with plenty of soap and water. Get medical advice/attention.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact: May cause mild skin irritation.

Symptoms/injuries after eye contact: May cause slight irritation.

Symptoms/injuries after ingestion: May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters

Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Wear protective equipment as described in Section 8.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up: Collect spillage. Clean up any spills as soon as possible, using an absorbent material to collect it.

6.4. Reference to other sections

No additional information available
SODIUM DIMETHYLDITHIOCARBAMATE, 40% in water  
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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

<table>
<thead>
<tr>
<th>Precautions for safe handling</th>
<th>Avoid all eye and skin contact and do not breathe vapor and mist. Use only in well ventilated areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hygiene measures</td>
<td>Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</td>
</tr>
</tbody>
</table>

#### 7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Storage conditions</th>
<th>Keep container tightly closed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatible materials</td>
<td>Oxidizing agent.</td>
</tr>
</tbody>
</table>

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

<table>
<thead>
<tr>
<th>Appropriate engineering controls</th>
<th>Provide local exhaust or general room ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal protective equipment</td>
<td>Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Neoprene or nitrile rubber gloves.</td>
</tr>
<tr>
<td>Eye protection</td>
<td>Chemical goggles or face shield. Contact lenses should not be worn.</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Wear suitable protective clothing.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.</td>
</tr>
</tbody>
</table>

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Liquid. Viscous.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>6000 - 8000 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>pH solution</td>
<td>7 - 8</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.275</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>300 - 800 cSt</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

#### 9.2. Other information

No additional information available
SODIUM DIMETHYLDITHIOCARBAMATE, 40% in water
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SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable. Avoid Freezing.

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
Oxidizing agent.

10.6. Hazardous decomposition products
Organic acid vapors. Sodium oxide fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
Water (7732-18-5)
LD50 oral rat: > 90 ml/kg
Sodium dimethyldithiocarbamate (128-04-1)
LD50 oral rat: 1 g/kg
LD50 oral mouse: 1500 mg/kg
LD50 oral rabbit: 300 mg/kg
LD50 dermal rat: > 5000 mg/kg
ATE US (oral): 1000.000 mg/kg body weight

Skin corrosion/irritation
Not classified

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitization
Not classified

Germ cell mutagenicity
Not classified

Carcinogenicity
Not classified

Reproductive toxicity
Not classified

Specific target organ toxicity (single exposure)
Not classified

Specific target organ toxicity (repeated exposure)
Not classified

Aspiration hazard
Not classified

Symptoms/injuries after inhalation
May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact
May cause mild skin irritation.

Symptoms/injuries after eye contact
May cause slight irritation.

Symptoms/injuries after ingestion
May be harmful if swallowed.

Reason for classification
Expert judgment

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general
Very toxic to aquatic life.

Sodium dimethyldithiocarbamate (128-04-1)

LC50 fish 1
3.7 - 11.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

EC50 Daphnia 1
0.2 mg/l (Exposure time: 48 h - Species: Daphnia magna)

LC50 fish 2
1.7 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available
SODIUM DIMETHYLDITHIOCARBAMATE, 40% in water
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12.5. Other adverse effects

Effect on ozone layer : No additional information available
Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

UN-No.(DOT) : 3077
DOT NA no. UN3077

14.2. UN proper shipping name

Transport document description : UN3077 Environmentally hazardous substances, solid, n.o.s. (SODIUM DIMETHYLDITHIOCARBAMATE, 40% in water), 9, III
Proper Shipping Name (DOT) : Environmentally hazardous substances, solid, n.o.s. (SODIUM DIMETHYLDITHIOCARBAMATE, 40% in water)
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)

Dangerous for the environment : Yes
Marine pollutant : Yes

DOT Packaging Non Bulk (49 CFR 173.xxx) : 213
DOT Packaging Bulk (49 CFR 173.xxx) : 240
DOT Packaging Exceptions (49 CFR 173.xxx) : 155
DOT Symbols : G - Identifies PSN requiring a technical name

14.3. Additional information

Emergency Response Guide (ERG) Number : 171
Other information : No supplementary information available.

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-S) : Listed on the United States TSCA (Toxic Substances Control Act) inventory
SODIUM DIMETHYL DITHIOCARBAMATE, 40% in water
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**Sodium dimethyldithiocarbamate (128-04-1)**
- Listed on the United States TSCA (Toxic Substances Control Act) inventory
- Subject to reporting requirements of United States SARA Section 313
- SARA Section 313 - Emission Reporting: 1.0 %

**15.2. International regulations**

**CANADA**
- Water (7732-18-5)
  - Listed on the Canadian DSL (Domestic Substances List)
- WHMIS Classification: Uncontrolled product according to WHMIS classification criteria
- Sodium dimethyldithiocarbamate (128-04-1)
  - Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**
- Water (7732-18-5)
  - Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
- Sodium dimethyldithiocarbamate (128-04-1)
  - Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

**National regulations**
- Water (7732-18-5)
  - Listed on the AICS (Australian Inventory of Chemical Substances)
  - Listed on IECCSC (Inventory of Existing Chemical Substances Produced or Imported in China)
  - Listed on the Korean ECL (Existing Chemicals List)
  - Listed on NZIoC (New Zealand Inventory of Chemicals)
  - Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
  - Listed on INSQ (Mexican National Inventory of Chemical Substances)
- Sodium dimethyldithiocarbamate (128-04-1)
  - Listed on the AICS (Australian Inventory of Chemical Substances)
  - Listed on IECCSC (Inventory of Existing Chemical Substances Produced or Imported in China)
  - Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
  - Listed on the Korean ECL (Existing Chemicals List)
  - Listed on NZIoC (New Zealand Inventory of Chemicals)
  - Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
  - Listed on INSQ (Mexican National Inventory of Chemical Substances)
  - Listed on CICR (Turkish Inventory and Control of Chemicals)

**15.3. US State regulations**

**Sodium dimethyldithiocarbamate (128-04-1)**
- U.S. - California - Proposition 65 - Carcinogens List
  - U.S. - California - Proposition 65 - Developmental Toxicity
  - U.S. - California - Proposition 65 - Reproductive Toxicity - Female
  - U.S. - California - Proposition 65 - Reproductive Toxicity - Male
  - Non-significant risk level (NSRL)
  - No: Yes
  - No: No

**Sodium dimethyldithiocarbamate (128-04-1)**
- U.S. - New Jersey - Right to Know Hazardous Substance List

**SECTION 16: Other information**

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H302</th>
<th>Harmful if swallowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
</tbody>
</table>

**Abbreviations and acronyms**

Abbreviations: ND: Not Determined; No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling.
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HMIS III Rating
Health : 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability : 0 Minimal Hazard - Materials that will not burn
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.

Date of issue: 11/09/2016 Version: 1.0

SDS US (GHS HazCom 2012) - Custom
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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