

**Material Safety Data Sheet**

acc. to OSHA and ANSI

Printing date 05/12/2010

Reviewed on 05/11/2010

**1 Identification of substance:****Product details:****Product name:** Sodium isopropoxide**Stock number:** 89446**Manufacturer/Supplier:**

Alfa Aesar, A Johnson Matthey Company  
 Johnson Matthey Catalog Company, Inc.  
 30 Bond Street  
 Ward Hill, MA 01835-8099  
 Emergency Phone: (978) 521-6300  
 CHEMTREC: (800) 424-9300  
 Web Site: www.alfa.com

**Information Department:** Health, Safety and Environmental Department**Emergency information:**

During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

**2 Composition/Data on components:****Chemical characterization:****Description: (CAS#)**

Sodium isopropoxide (CAS# 683-60-3)

**Identification number(s):****EINECS Number:** 211-673-7**3 Hazards identification****Hazard description:**

C Corrosive  
 F Highly flammable

**Information pertaining to particular dangers for man and environment**

R 11 Highly flammable.

R 14 Reacts violently with water.

R 34 Causes burns.

**Classification system****HMIS ratings (scale 0-4)****(Hazardous Materials Identification System)**

HEALTH	3
FIRE	3
REACTIVITY	2

Health (acute effects) = 3

Flammability = 3

Reactivity = 2

**GHS label elements****Danger**

2.11/1 - Self-heating: may catch fire.

2.7/2 - Flammable solid.

**Danger**

3.2/1B - Causes severe skin burns and eye damage.

**Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

In case of fire: Use for extinction: Fire-extinguishing powder.

**Storage:**

Store in a dry place. Store in a closed container.

**4 First aid measures****General information** Immediately remove any clothing soiled by the product.

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**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek immediate medical advice.

**5 Fire fighting measures****Suitable extinguishing agents**

Dry sand  
Extinguishing powder. Do not use water.

**For safety reasons unsuitable extinguishing agents**

Carbon dioxide  
Water

**Special hazards caused by the material, its products of combustion or resulting gases:**

Self igniting at raised temperature.  
In case of fire, the following can be released:  
Carbon monoxide and carbon dioxide  
Sodium oxide

Reacts violently with water

**Protective equipment:**

Wear self-contained respirator.  
Wear fully protective impervious suit.

**6 Accidental release measures****Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources

**Measures for environmental protection:**

Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:**

Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents  
Keep away from ignition sources.

**Additional information:**

See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage****Handling****Information for safe handling:**

Handle under dry protective gas.  
Keep container tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation at the workplace.

**Information about protection against explosions and fires:**

Protect from humidity and water.  
Keep ignition sources away.  
Protect against electrostatic charges.

**Storage**

**Requirements to be met by storerooms and receptacles:** Store in a cool location.

**Information about storage in one common storage facility:**

Store away from air.  
Store away from water/moisture.  
Do not store together with acids.

**Further information about storage conditions:**

Store under dry inert gas.  
This product is moisture sensitive.  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Protect from humidity and water.

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This product is air sensitive.

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**8 Exposure controls and personal protection****Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Components with limit values that require monitoring at the workplace:** Not required.

**Additional information:** No data

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respirator when high concentrations are present.

**Protection of hands:** Impervious gloves

**Eye protection:**

Safety glasses

Tightly sealed goggles

Full face protection

**Body protection:** Protective work clothing.

**9 Physical and chemical properties:****General Information**

<b>Form:</b>	Crystalline
<b>Color:</b>	Yellow
<b>Odor:</b>	Not determined

**Change in condition**

<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	Decomposes
<b>Sublimation temperature / start:</b>	Not determined

<b>Flash point:</b>	Not applicable
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<b>Flammability (solid, gaseous)</b>	Highly flammable.
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<b>Ignition temperature:</b>	Not determined
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<b>Decomposition temperature:</b>	Not determined
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**Explosion limits:**

<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined

<b>Vapor pressure:</b>	Not determined
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<b>Density:</b>	Not determined
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<b>Solubility in / Miscibility with Water:</b>	Reacts violently
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**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

**Materials to be avoided:**

Oxidizing agents

Air

Carbon dioxide

Water/moisture

Acids

**Dangerous reactions**

Reacts violently with water

Reacts with acids

Self igniting at raised temperature

**Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

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**Product name: Sodium isopropoxide**

Sodium oxide

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**11 Toxicological information****Acute toxicity:****Primary irritant effect:****on the skin:** Corrosive effect on skin and mucous membranes.**on the eye:** Strong corrosive effect.**Sensitization:** No sensitizing effects known.**Subacute to chronic toxicity:**

Corrosive materials are acutely destructive to the respiratory tract, eyes, skin and digestive tract. Eye contact may result in permanent damage and complete vision loss. Inhalation may result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus. May cause skin burns or irritation depending on the severity of the exposure.

Isopropyl alcohol, if formed, may act as a local irritant and in high concentrations as a narcotic with symptoms such as headache, nausea, dizziness, vomiting, mental depression, anesthesia, and coma. Similar symptoms may be caused by ingestion. It can cause corneal burns on contact with the eyes and has caused teratogenic, mutagenic and reproductive effects in laboratory animals.

**Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**12 Ecological information:****Additional ecological information:****General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

**13 Disposal considerations****Product:**

**Recommendation** Consult state, local or national regulations to ensure proper disposal.

**Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

**14 Transport information****DOT regulations:****Hazard class:**

4.2

**Identification number:**

UN3206

**Packing group:**

II

**Proper shipping name (technical name):** ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (sodium isopropoxide)

**Label**

4.2+8

**Land transport ADR/RID (cross-border)****ADR/RID class:**

4.2 (SC4) Substances liable to spontaneous combustion

**Danger code (Kemler):**

48

**UN-Number:**

3206

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**Product name: Sodium isopropoxide**

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**Packaging group:** II  
**Description of goods:** 3206 ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (Sodium isopropoxide)

**Maritime transport IMDG:**

**IMDG Class:** 4.2  
**UN Number:** 3206  
**Label:** 4.2+8  
**Packaging group:** II  
**Marine pollutant:** No  
**Proper shipping name:** ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (sodium isopropoxide)

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** 4.2  
**UN/ID Number:** 3206  
**Label:** 4.2+8  
**Packaging group:** II  
**Proper shipping name:** ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S. (sodium isopropoxide)

**UN "Model Regulation":**

UN3206, ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S., 4.2 (8), II

**15 Regulations****Product related hazard informations:****Hazard symbols:**

C Corrosive  
 F Highly flammable

**Risk phrases:**

11 Highly flammable.  
 14 Reacts violently with water.  
 34 Causes burns.

**Safety phrases:**

8 Keep container dry.  
 16 Keep away from sources of ignition - No smoking.  
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
 43 In case of fire, use powdered extinguishing agent. Never use water.  
 45 In case of accident or if you feel unwell, seek medical advice immediately.

**National regulations**

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

**Information about limitation of use:** For use only by technically qualified individuals.

**16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing MSDS:** Health, Safety and Environmental Department.

**Contact:** Zachariah Holt

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**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

USA