Material Safety Data Sheet acc. to OSHA and ANSI

Printing date 05/21/2009 Reviewed on 05/21/2009

1 Identification of substance:

Product details:

Product name: Sodium iodate

Stock number: 40135
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

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 iodate (CAS# 7681-55-2): 100%

Identification number(s):
EINECS Number: 231-672-5

3 Hazards identification

Hazard description:





Xn Harmful O Oxidizing

Information pertaining to particular dangers for man and environment

- R 8 Contact with combustible material may cause fire.
- R 22 Harmful if swallowed.

R 42/43 May cause sensitization by inhalation and skin contact.

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)



 $\begin{array}{ll} \textit{Health (acute effects)} = 2 \\ \textit{Flammability} = 1 \\ \textit{Reactivity} = 3 \end{array}$

GHS label elements



Danger

2.14/2 - May intensify fire; oxidizer.



Danger

3.1/3 - Toxic if swallowed.

3.4/1 - May cause an allergic skin reaction.



Danger

3.4/1 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Prevention:

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

Keep/Store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

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

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In case of inadequate ventilation wear respiratory protection.

Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

Specific treatment (see label).

Rinse mouth.

If skin irritation or rash occurs: Get medical advice/attention.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

Storage:

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

After inhalation

Supply fresh air and to be sure call for a doctor.

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

Use carbon dioxide, extinguishing powder or foam. Water may be ineffective but may be used for cooling exposed containers.

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

In case of fire, the following can be released:

Hydrogen iodide (HI)

This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

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

Measures for environmental protection:

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

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

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.

Prevent formation of dust.

Information about protection against explosions and fires:

Substance/product can reduce the ignition temperature of flammable substances.

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This substance is an oxidizer and its heat of reaction with reducing agents or combustibles

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Store away from flammable substances.

Store away from reducing agents.

Store away from water/moisture.

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.

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.

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

Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

Material of gloves

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties:

Form:	Powder
Color:	White
Odor:	Not determined
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Flammability (solid, gaseous)	Contact with combustible material may cause fire.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density at 20°C (68°F):	4.277 g/cm³
Solubility in / Miscibility with	
Water at 20°C (68°F):	90 q/l

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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:

Water/moisture

Reducing agents, easily oxidized materials

Organic materials

Metal powders

Dangerous reactions

Reacts with reducing agents

Reacts with flammable substances

Dangerous products of decomposition: Hydrogen iodide (HI)

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

Oral LD50 505 mg/kg (mouse)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

Subacute to chronic toxicity:

Subacute to chronic toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) reports the following effects in laboratory animals:

Behavioral - food intake (animal).

Behavioral - convulsions or effect on seizure threshold. Behavioral - excitement.

Lungs, Thorax, or Respiration - other changes.

Peripheral Nerve and Sensation - spastic paralysis with or without sensory change.

Kidney, Ureter, Bladder - proteinuria.

Subacute to chronic toxicity:

Iodates are strong irritants to the eyes, skin, respiratory and gastrointestinal tract.

Exposure may also cause nausea, vomiting, diarrhea or skin rash.

Additional toxicological information:

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

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

12 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: 5.1 Identification number: UN1479 Packing group: II

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Product name: Sodium iodate

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Proper shipping name (technical name): OXIDIZING SOLID, N.O.S. (Sodium iodate)

bel

Land transport ADR/RID (cross-border)



ADR/RID class: 5.1 (O2) Oxidizing substances

Danger code (Kemler): 50
UN-Number: 1479
Packaging group: II

Description of goods: 1479 OXIDIZING SOLID, N.O.S. (Sodium iodate)

Maritime transport IMDG:



IMDG Class: 5.1
UN Number: 1479
Label 5.1
Packaging group: II

Proper shipping name: OXIDIZING SOLID, N.O.S. (Sodium iodate)

Air transport ICAO-TI and IATA-DGR:



 ICAO/IATA Class:
 5.1

 UN/ID Number:
 1479

 Label
 5.1

 Packaging group:
 II

Proper shipping name: OXIDIZING SOLID, N.O.S. (Sodium iodate)

UN "Model Regulation": UN1479, OXIDIZING SOLID, N.O.S., 5.1, II

15 Regulations

Product related hazard informations:

Hazard symbols:

Xn Harmful

O Oxidizing

Risk phrases:

- 8 Contact with combustible material may cause fire.
- 22 Harmful if swallowed.
- 42/43 May cause sensitization by inhalation and skin contact.

Safety phrases:

- 17 Keep away from combustible material.
- 22 Do not breathe dust.
- 24 Avoid contact with skin.
- 37 Wear suitable gloves.
- 45 In case of accident or if you feel unwell, seek medical advice immediately.
- 60 This material and its container must be disposed of as hazardous waste.

National regulations

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

All components of this product are listed on the Canadian Domestic Substances List (DSL).

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

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user.

Department issuing MSDS: Health, Safety and Environmental Department.

Contact: Zachariah Holt

Abbreviations and acronyms:

ADDR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Réglement 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: UR Department of Transport of T

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: Department of Transport Association
IATA-DGR: Dangerous Goods Regulations by the "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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA