Reviewed on 11/10/2008

1 Identification of substance:

Product details:

Product name: Methyl hydrogen phthalate

Stock number:

A14780 L04040

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#)

Identification number(s): EINECS Number: 224-476-6

3 Hazards identification

Hazard description:

(Hazardous Materials Identification System)

Flammability - I

Methyl hydrogen phthalate (CAS# 4376-18-5): 100%

Xi Irritant

Information pertaining to particular dangers for man and environment R 36/37/38 Irritating to eyes, respiratory system and skin. Classification system HMIS ratings (scale 0-4)

Reactivity - I REACTIVITY 1

Seek immediate medical advice.

Product name: Methyl hydrogen phthalate

After eye contact

resulting gases:

Protective equipment:

governmental permits.

7 Handling and storage

Handling

Storage

doctor.

4 First aid measures patient warm.

FIRE

Supply fresh air. If required, provide artificial respiration. Keep

Health (acute effects) = 1

After inhalation

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

Material Safety Data Sheet

acc. to OSHA and ANSI Printing date II/I0/2008

After swallowing Seek immediate medical advice.

In case of fire, the following can be released:

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

(Contd. of page 1)

Reviewed on II/I0/2008

(Contd. on page 2)

Page 2/5

Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Carbon monoxide and carbon dioxide

Measures for environmental protection:

See Section 13 for disposal information.

Ensure good ventilation at the workplace.

Wear self-contained respirator.

5 Fire fighting measures

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

Wear fully protective impervious suit. 6 Accidental release measures Person-related safety precautions:

Do not allow material to be released to the environment without proper

Wear protective equipment. Keep unprotected persons away.

Dispose contaminated material as waste according to item 13. Ensure adequate ventilation. Additional information: See Section 7 for information on safe handling

Measures for cleaning/collecting:

Ensure adequate ventilation

Information for safe handling: Keep container tightly sealed. Store in cool, dry place in tightly closed containers.

Information about protection against explosions and fires:

Requirements to be met by storerooms and receptacles:

Store in cool, dry conditions in well sealed containers.

See Section 8 for information on personal protection equipment.

No special requirements. Information about storage in one common storage facility: Store away from oxidizing agents. Further information about storage conditions:

Printing date II/I0/2008

Not required.

Breathing equipment:

General Information

Decomposition temperature:

Danger of explosion:

Explosion limits: Lowers

Upper:

Density:

Vapor pressure:

Form:

Colori

Odor:

Keep container tightly sealed.

Product name: Methyl hydrogen phthalate

Keep ignition sources away.

8 Exposure controls and personal protection

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Additional information about design of technical systems:

Remove all soiled and contaminated clothing immediately.

Use suitable respirator when high concentrations are present.

(Contd. of page 2)

Reviewed on 11/10/2008

(Contd. on page 3)

Page 3/5

Additional information: No data Personal protective equipment General protective and hygienic measures

The usual precautionary measures for handling chemicals should be

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:

Material Safety Data Sheet acc. to OSHA and ANSI

Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition. Material of gloves

Avoid contact with the eyes and skin.

Eye protection: Safety glasses Body protection: Protective work clothing. 9 Physical and chemical properties:

Powder

Not determined

Not determined

Not determined

Not determined

Not determined

Not determined

explosion hazard.

Product does not present an

(Contd. on page 4)

White

The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Change in condition Melting point/Melting range: 81-84°C (178-183°F) Not determined Boiling point/Boiling range: Sublimation temperature / start: Not determined Flash point: Not applicable Ignition temperature: Not determined

Page 4/5 Material Safety Data Sheet acc. to OSHA and ANSI Reviewed on II/I0/2008 Printing date II/I0/2008 Product name: Methyl hydrogen phthalate (Contd. of page 3) 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 Dangerous reactions No dangerous reactions known Dangerous products of decomposition: Carbon monoxide and carbon dioxide 11 Toxicological information Acute toxicity: Primary irritant effect: on the skin: Irritant to skin and mucous membranes. on the eye: Irritating effect.

Other than potential irritation (see above), no information on illness or

injury to humans from acute or chronic exposure to this product is

To the best of our knowledge the acute and chronic toxicity of this

No classification data on carcinogenic properties of this material is

Do not allow undiluted product or large quantities of it to reach ground

Do not allow material to be released to the environment without proper

Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.

Sensitization: No sensitizing effects known.

available from the EPA, IARC, NTP, OSHA or ACGIH.

Subscute to chronic toxicity:

substance is not fully known.

12 Ecological information:

governmental permits.

13 Disposal considerations

14 Transport information

ADR/RID class: None

DOT regulations: Hazard class:

Printing date 11/10/2008

ICAO/IATA Class: None

15 Regulations

Hazard symbols: Xi Irritant Risk phrases:

Product name: Methyl hydrogen phthalate

Transport/Additional information:

Product related hazard informations:

Additional toxicological information:

water, water course or sewage system.

available.

General notes:

Recommendation

Product:

Not a hazardous material for transportation.

None Land transport ADR/RID (cross-border)

(Contd. of page 4) Maritime transport IMDG: IMDG Class: Air transport ICAO-TI and IATA-DGR:

Not dangerous according to the above specifications.

Material Safety Data Sheet acc. to OSHA and ANSI

Safety phrases: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 36/37 Wear suitable protective clothing and gloves. National regulations

Information about limitation of use:

Substances List (NDSL).

For use only by technically qualified individuals. 16 Other information:

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: Paul V. Connolly

(Contd. on page 5)

Page 5/5

Reviewed on 11/10/2008

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

36/37/38 Irritating to eyes, respiratory system and skin. This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic