1 Identification of substance:

Product details: Product name: Decanal

Stock number: A11656 L06445

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

2 Composition/Data on components:

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

Chemical characterization: Description: (CAS#) Decanal (CAS# 112-31-2): 100%

EINECS Number: 203-957-4 3 Hazards identification

Hazard description: Xi Irritant

Identification number(s):

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) (Hazardous Materials Identification System)

Health (acute effects) = 1 Flammability - 2 FIRE 2 Reactivity - I REACTIVITY 1

4 First aid measures

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

patient warm. Seek immediate medical advice. After skin contact

Product name: Decanal

doctor.

After eye contact

5 Fire fighting measures

Protective equipment:

Suitable extinguishing agents

Carbon monoxide and carbon dioxide

Wear fully protective impervious suit.

Wear self-contained respirator.

6 Accidental release measures

Ensure adequate ventilation

universal binders, sawdust). Ensure adequate ventilation. Additional information:

Information for safe handling: Keep container tightly sealed.

Keep ignition sources away.

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Personal protective equipment

Eye protection: Safety glasses

Breathing equipment:

Protection of hands: Impervious gloves

Material of gloves

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General protective and hygienic measures

Avoid contact with the eyes and skin.

Body protection: Protective work clothing.

9 Physical and chemical properties:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Remove all soiled and contaminated clothing immediately.

Use suitable respirator when high concentrations are present.

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

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Handling

Person-related safety precautions:

Seek immediate medical advice.

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

Immediately wash with water and soap and rinse thoroughly.

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Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards caused by the material, its products of combustion or resulting gases:

Wear protective equipment. Keep unprotected persons away.

Absorb with liquid-binding material (sand, diatomite, acid binders,

See Section 8 for information on personal protection equipment.

After swallowing Seek immediate medical advice.

In case of fire, the following can be released:

Measures for environmental protection: Do not allow material to be released to the environment without proper governmental permits. Measures for cleaning/collecting:

See Section 13 for disposal information. 7 Handling and storage

Store in cool, dry place in tightly closed containers.

Information about protection against explosions and fires:

See Section 7 for information on safe handling

Ensure good ventilation at the workplace.

Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Material Safety Data Sheet acc. to OSHA and ANSI

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

The usual precautionary measures for handling chemicals should be

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

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General Information Liquid Form: Colori Colorless

Odor: Not determined Change in condition Melting point/Melting range: Not determined 93-95°C (199-203°F) (10mm Hg) Boiling point/Boiling range: Sublimation temperature / start: Not determined Flash point: 85°C (185°F) Ignition temperature: Not determined Decomposition temperature: Not determined Danger of explosion: Product does not present an explosion hazard. Explosion limits: Not determined Lowers Not determined Upper: Not determined Vapor pressure: Density at 20°C (68°F): 0.83 g/cm³ (Contd. on page 4)

(Contd. of page 3) Solubility in / Miscibility with Not miscible or difficult to mix 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: LD/LC50 values that are relevant for classification: LD50 >41750 mg/kg (mouse) Oral 3730 mg/kg (rat) LD50 5040 µL/kg (rabbit) Dermal Irritation of skin mild 500 mg/24H (rabbit) severe 14 mg/24H (rabbit) Primary irritant effect: on the skin: Irritant to skin and mucous membranes. on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

following effects in laboratory animals:

Additional toxicological information:

Gastrointestinal - hypermotility, diarrhea.

Subscute to chronic toxicity: Subscute to chronic toxicity:

Behavioral - excitement.

12 Ecological information:

governmental permits.

General notes:

Skin and Appendages - hair.

Other information (about experimental toxicology):

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

Mutagenic effects have been observed on tests with bacteria.

The Registry of Toxic Effects of Chemical Substances (RTECS) reports the

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

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

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

Recommendation: Disposal must be made according to official regulations.

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13 Disposal considerations

Uncleaned packagings:

14 Transport information

Maritime transport IMDG:

ICAO/IATA Class: None

DOT regulations: Hazard class:

ADR/RID class:

IMDG Class:

15 Regulations

Hazard symbols: Xi Irritant Risk phrases:

Safety phrases:

Inventory.

16 Other information:

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Not a hazardous material for transportation.

Not dangerous according to the above specifications.

36/37/38 Irritating to eyes, respiratory system and skin.

None Land transport ADR/RID (cross-border)

None Air transport ICAO-TI and IATA-DGR:

Transport/Additional information:

Product related hazard informations:

and seek medical advice.

Information about limitation of use:

For use only by technically qualified individuals.

37 Wear suitable gloves. National regulations

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Recommendation

Product:

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

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26 In case of contact with eyes, rinse immediately with plenty of water

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