Material Safety Data Sheet acc. to OSHA and ANSI

Printing date 06/28/2010

Reviewed on 06/25/2010

1 Identification of substance:

Product details:

Product name: Allyl heptanoate

Stock number: L10671 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#)

Allyl heptanoate (CAS# 142-19-8)
Identification number(s):
EINECS Number: 205-527-1

3 Hazards identification

Hazard description:



Xn Harmful

Information pertaining to particular dangers for man and environment

R 21/22 Harmful in contact with skin and if swallowed.

R 36/38 Irritating to eyes and skin.

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)



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

GHS label elements



Danger

3.1/3 - Toxic in contact with skin.

3.1/4 - Harmful if swallowed.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

Warning

2.6/4 - Combustible liquid.

Prevention:

 ${\it Keep away from heat/sparks/open flames/hot surfaces. - No smoking.}$

Response:

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

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

Remove/Take off immediately all contaminated clothing.

Storage:

Store locked up.

Disposal:

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

- USA

Material Safety Data Sheet acc. to OSHA and ANSI

Printing date 06/28/2010 Reviewed on 06/25/2010

Product name: Allyl heptanoate

(Contd. of page 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

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

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:

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

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:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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:

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: Keep ignition sources away.

Storage

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.

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.

(Contd. on page 3)

Material Safety Data Sheet acc. to OSHA and ANSI

Printing date 06/28/2010 Reviewed on 06/25/2010

Product name: Allyl heptanoate

(Contd. of page 2)

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:

General Information	
Form:	Liquid
Color:	Colorless
Odor:	Not determined
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	210-212°C (410-414°F)
Sublimation temperature / start:	Not determined
Flash point:	74°C (165°F)
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density at 20°C (68°F):	0.882 g/cm³
Solubility in / Miscibility with	
Water:	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:

<u>-</u>		
LD/LC50 values that	are relev	ant for classification:
Oral		500 mg/kg (rat)
Dermal	LD50	810 mg/kg (rabbit)
Irritation of skin	moderate	500 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.

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 - somnolence (general depressed activity).

Behavioral - ataxia.

Nutritional and Gross Metabolic - weight loss or decreased weight gain.

Liver - other changes.

Related to Chronic Data - death.

Additional toxicological information:

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

Danger through skin absorption.

(Contd. on page 4)

Material Safety Data Sheet acc. to OSHA and ANSI

Printing date 06/28/2010 Reviewed on 06/25/2010

Product name: Allyl heptanoate

(Contd. of page 3)

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: 6.1
Identification number: UN2810
Packing group: III

Proper shipping name (technical name): TOXIC LIQUID, ORGANIC, N.O.S. (Allyl heptanoate)

abel 6.1

Land transport ADR/RID (cross-border)



ADR/RID class: 6.1 (T1) Toxic substances

Danger code (Kemler): 60
UN-Number: 2810
Packaging group: III

Description of goods: 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Allyl heptanoate)

Maritime transport IMDG:

UN Number: 2810
Marine pollutant: No

Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Allyl heptanoate)

Air transport ICAO-TI and IATA-DGR:

UN/ID Number: 2810

Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Allyl heptanoate)

UN "Model Regulation": UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, III

15 Regulations

Product related hazard informations:

Hazard symbols:

Xn Harmful

Risk phrases:

21/22 Harmful in contact with skin and if swallowed.

36/38 Irritating to eyes and skin.

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.

(Contd. on page 5)

Material Safety Data Sheet acc. to OSHA and ANSI

Reviewed on 06/25/2010 Printing date 06/28/2010

Product name: Allyl heptanoate

(Contd. of page 4)

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

Department issuing MSDS: Health, Safety and Environmental Department.

Contact: Zachariah Holt 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-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