Page 1/4 Printing date 11/23/2015 Reviewed on 08/04/2011

1 Identification

Product identifier

Product name: Benzoin ethyl ether

Stock number: L01289

CAS Number: 574-09-4 EC number:

Relevant identified uses of the substance or mixture and uses advised against.

Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: Alfa Aesar Thermo Fisher Scientific Chemicals, Inc.

Thermo Fisher Scientific S. 30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech @alfa.com

www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency telephone number:

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed. Hazards not otherwise classified No information known.

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS06

Signal word Danger Hazard statements

H301 Toxic if swallowed.

H301 TOXIC IT SWallowed.

Precautionary statements
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...
P321 Specific treatment (see on this label).
P405 Store locked up.
Dispose of contents/container in accordance with local/regional/nat P501 Dispose of contents/container in accordance with local/regional/national/international regulations. **WHMIS classification** Not controlled

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



Health (acute effects) = 1 Flammability = 1

Flammability = 1

Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances

CAS# Description: 574-09-4 Benzoin ethyl ether

Identification numbér(s): EC number: 209-366-8

4 First-aid measures

Description of 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 medical treatment.
Information for doctor

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

USA

Product name: Benzoin ethyl ether

(Contd. of page 1)

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:

Advice for firefighters Protective equipment:

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

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

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

Methods and material for containment and cleaning up: Pick up mechanically.

Prevention of secondary hazards: No special measures required.
Reference to other sections
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

Repeations 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: No information known.

Conditions for safe storage, including any incompatibilities

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.

Specific end use(s) No further relevant information available.

8 Exposure controls/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.

Control parameters

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

Additional information: No data

Exposure controls

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.
Maintain on expansively expressive working on expansive the contaminated.

Maintain an ergonomically appropriate working environment.

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

Protection of hands:

Impervious gloves

The selection of suitable gloves prior to each use for their proper condition.

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

Penetration time of glove material (in minutes) Not determined

Product does not present an explosion hazard.

Eye protection: Safety glasses Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance: Form: Color:

Odor:

Crystalline powder White Not determined

Odor threshold: Not determined pH-value: Not applicable.

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 55-59 °C (131-138 °F) Not determined Not determined

Not applicable Not determined. Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Not determined Not determined Auto igniting: Not determined.

Danger of explosion: Explosion limits:

Lower: Upper: Not determined

Not determined Vapor pressure: Not applicable.

Page 3/4 Printing date 11/23/2015 Reviewed on 08/04/2011

Product name: Benzoin ethyl ether

(Contd. of page 2)

Density: Relative density Not determined Not determined. Vapor density Not applicable. Evaporation rate Solublity in / Miscibility with Not applicable. Insoluble Water:

Partition coefficient (n-octanol/water): Not determined. Viscosity: Not applicable. Not applicable. dvnamic: kinematic:

No further relevant information available Other information

10 Stability and reactivity

Reactivity No information known.

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions No dangerous reactions known

Conditions to avoid No further relevant information available.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

Information on toxicological effects Acute toxicity: No effects known.

LD/LC50 values that are relevant for classification:

Oral LD50 300 mg/kg (mouse)

Skin irritation or corrosion: Irritant to skin and mucous membranes.

Eye irritation or corrosion: Irritating effect.

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

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

Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Aspiration hazard: No effects known.

Subacute to chronic toxicity: No effects known.

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

12 Ecological information

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxical effects:

Remark: Very toxic for aquatic organisms Additional ecological information:

General notes:

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

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies.

May cause long lasting harmful effects to aquatic life.

Avoid transfer into the environment. Very toxic for aquatic organisms Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

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

UN-Number DOT, ÎMDĞ, IATA

UN3077

UN proper shipping name DOT

Environmentally hazardous substances, solid, n.o.s. (Benzoin ethyl ether) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzoin ethyl IMDG, IATA ether)

Transport hazard class(es)

DOT, IMDG



Class 9 Miscellaneous dangerous substances and articles. Label

Class 9 (M7) Miscellaneous dangerous substances and articles

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Label	(Contd. of page
IATA	ÿ
Class Label	9 Miscellaneous dangerous substances and articles. 9
Packing group DOT, IMDG, IATA	III
Environmental hazards: Special marking (ADR):	Symbol (fish and tree)
Special marking (ADR): Special marking (IATA):	Symbol (fish and tree) Symbol (fish and tree)
Special precautions for user EMS Number:	Warning: Miscellaneous dangerous substances and articles F-A,S-F
Transport in bulk according to Annex II of MARPOL	.73/78 and the IBC Code Not applicable.
Transport/Additional information:	
DOT Marine Pollutant (DOT):	No
UN "Model Regulation":	UN3077, Environmentally hazardous substances, solid, n.o.s. (Benzoin ethyl ether), 9, III

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms



GHS06

Signal word Danger Hazard statements H301 Toxic if swallowed.

Precautionary statements
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P310 IF SWALL OWED: Immediately call a POISON CENTER/ doctor/...
P321 Specific treatment (see on this label).
P405 Store locked up.
P501
Picco of contents/container in accordance with local/regional/nat

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

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).

SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65
Prop 65 - Chemicals known to cause cancer Substance is not listed.

Prop 65 - Chemicals known to cause cancer Substance is not listed.
Prop 65 - Developmental toxicity Substance is not listed.
Prop 65 - Developmental toxicity, female Substance is not listed.
Prop 65 - Developmental toxicity, male Substance is not listed.
Prop 65 - Developmental toxicity, male Substance is not listed.
Information about limitation of use: For use only by technically qualified individuals.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
Substance is not listed

Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 /

Date of preparation / last revision 11/23/2015 / Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transport Association
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
LD50: Lethal dose, 50 percent
VPVB: very Persistent and very Bioaccumulative
ACGIH: American Conference of Governmental Industrial Hygienists (USA)
OSHA: Occupational Safety and Health Administration (USA)
NTP: National Toxicology Program (USA)
IARC: International Agency for Research on Cancer
EPA: Environmental Protection Agency (USA)