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1 Identification

Product identifier

Product name: (3S,4R)-4-(4-Fluorophenyl)-1-methyl-3-piperidinemethanol

Stock number: H28137

CAS Number: ELINCS Number: 406-030-4 Index number: 603-147-00-

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. 30 Bond Street SU BUTIG STEET 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)



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed. Hazards not otherwise classified No information known.

Label elements

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







GHS05 GHS07

Signal word Danger Hazard statements

H302 Harmful if swallowed. H318 Causes serious eye damage.

Precautionary statements

Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection.
P262 Do not get in eyes, on skin, or on clothing.
P273 Avoid release to the environment.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

WHMIS classification

D2B - Toxic material causing other toxic effects



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



Health (acute effects) = 2
| 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:
105812-81-5 (3S,4R)-4-(4-Fluorophenyl)-1-methyl-3-piperidinemethanol Identification number(s):
ELINCS Number: 406-030-4

Index number: 603-147-00-4

4 First-aid measures

Description of first aid measures

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

(Contd. of page 1)

Product name: (3S,4R)-4-(4-Fluorophenyl)-1-methyl-3-piperidinemethanol

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.

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:

Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Possibly Hydrogen cyanide (HCN)
Hydrogen fluoride (HF)
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: Dispose of contaminated material as waste according to section 13.

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 Precautions for safe handling

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: No information known.

Conditions for safe storage, including any incompatibilities

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.
Avoid contact with the even

Avoid contact with the eyes.

Maintain an ergonomically appropriate working environment.

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.
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

Eye protection: Tightly sealed goggles

Body protection: Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance: Form:

Color:

Powder Odorless

Odor: Odor threshold:

Not determined.

pH-value: Not applicable.

(Contd. on page 3)

Product name: (3S,4R)-4-(4-Fluorophenyl)-1-methyl-3-piperidinemethanol

Not applicable.

(Contd. of page 2) Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 93-98 °C (199-208 °F) Not determined Not determined Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Not applicable Not determined Not determined Not determined Auto igniting: Not determined Danger of explosion: Explosion limits: Product does not present an explosion hazard. Lower: Not determined Not determined Upper: Vapor pressure: Not applicable. Density: Relative density Not determined Not determined. Vapor density Not applicable. Evaporation rate Not applicable. Solubility in / Miscibility with Water: Insoluble Partition coefficient (n-octanol/water): Not determined. Viscosity.

10 Stability and reactivity

dynamic:

kinematic: Other information

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.

Not applicable. No further relevant information available.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Carbon monoxide and carbon dioxide

Nitrogen oxides

Hydrogen fluoride Possibly Hydrogen cyanide (HCN)

11 Toxicological information

Information on toxicological effects Acute toxicity: Harmful if swallowed.

LD/LC50 values that are relevant for classification: No data Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: Causes serious eye damage.

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: Toxic for aquatic organisms
Additional ecological information:

General notes:

Do not allow product to reach ground water, water course or sewage system.

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

Toxic for aquatic organisms Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies.

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.

USA

Safety Data Sheet per OSHA HazCom 2012

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Product name: (3S,4R)-4-(4-Fluorophenyl)-1-methyl-3-piperidinemethanol

(Contd. of page 3)

	(Conta. or page of
14 Transport information	
UN-Number DOT, IMDG, IATA	UN3077
UN proper shipping name DOT	Environmentally hazardous substances, solid, n.o.s. ((3S,4R)-4-(4-Fluorophenyl)-1-
IMDG	methyl-3-piperidinemethanol) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((3S,4R)-4-(4-Fluorophenyl)-1-methyl-3-piperidinemethanol), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((3S,4R)-4-(4-Fluorophenyl)-1-methyl-3-piperidinemethanol), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((3S,4R)-4-(4-Fluorophenyl-)-1-methyl-3-piperidinemethanol)
IATA	ENVIRONMENTALLY HAZARINIEN ENVIRONMENTALY HAZARINIEN ENVIRONMENTALLY HAZARINIEN ENVIRONMENTALLY HAZARINIEN EN ENVIRONMENTALY HAZARINIEN EN ENVIRONMENTAL ENVIRONMENTAL EN ENVIRONMENTAL EN ENVIRONMENTAL ENVIRONMENTAL EN ENVIRONMENTAL ENVIRONMENT
Transport hazard class(es)	
DOT, IMDG, IATA	
Class	9 Miscellaneous dangerous substances and articles.
Label Class Label	9 9 (M7) Miscellaneous dangerous substances and articles 9
Packing group DOT, IMDG, IATA	III
Environmental hazards: Marine pollutant (IMDG): Special marking (ADR): Special marking (IATA):	Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances and articles
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.	
Transport/Additional information:	
DOT Marine Pollutant (DOT): Remarks:	No Special marking with the symbol (fish and tree).
UN "Model Regulation":	UN3077, Environmentally hazardous substances, solid, n.o.s. ((3S,4R)-4-(4- Fluorophenyl)-1-methyl-3-piperidinemethanol), 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





GHS05 GHS07

Signal word Danger Hazard statements

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Precautionary statements

Precationary statements
Avoid breathing dust/fume/gas/mist/vapours/spray.
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National regulations
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. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

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 - Developmental toxicity, Substance is not listed.

Prop 65 - Developmental toxicity, female 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.

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 11/24/2015 / 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)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Fechnical Instructions by the "International Civil Aviation Organization" (ICAO)
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 Transportation
IATA: International Air Transport Association

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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 concentration, 50 percent vPvB: very Persistent and very Bioaccumulative 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)

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USA