

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT CODE H0171
PRODUCT NAME ISOBUTYL MERCAPTAN SYNTHETIC
SUPPLIER Shanghai M & U International Trade Co., Ltd.
Rm 1717, No 598 North NuJiang Road
200333 Shanghai, China
+86-21-32515501 32515502
sales@mu-intel.com

FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)

2. HAZARD IDENTIFICATION:

Classification of the substance or mixture



GHS02

GHS07

H332 Harmful if inhaled. Acute tox.4
H225 Highly flammable liquid vapor. Flam. Liq. 4

Label elements

Harmful in contact with skin or if inhaled.

GHS label elements

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible. The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS02 GHS07

Signal word

Danger

Hazard statements

H332 Harmful if inhaled.
H225 Highly flammable liquid and vapor.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion proof electrical/ventilating/lighting equipment.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P303+P361+P353 IF ON SKIN: Remove/take off immediately all contaminated clothing.
Rinse skin with water/shower.
P403+P325 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 1
Fire = 4
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 4
Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS:

Chemical characterization: Substances

CAS No.: 513-44-0

Description: 2-methylpropane-1-thiol

Identification number(s)

EC No: 208-162-6

4. FIRST-AID GUIDE:

Description of first aid measures

After inhalation:

Supply fresh air. If required provide artificial respiration. Keep patient warm. In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

If symptoms persist consult a doctor.

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 GUIDE:

Extinguishing media

Suitable extinguishing agents:

CO2 or extinguishing powder. Fight larger fires with alcohol resistant foam.

Special hazards arising from the substance or mixture

No further relevant information available.

Advice for firefighters

Protective equipment:

Mouth respiratory protective device.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated firefighting water separately. It must not enter the sewage system.

6. ACCIDENTAL RELEASE GUIDE:

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:

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

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

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires:

Keep ignition sources away – do not smoke. Protect against electrostatic charges.

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:

Not required.

Further information about storage conditions:

Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.

Specific end use(s)

No further relevant information available.

8. EXPOSURE AND PERSONAL PROTECTION:

Additional information about design of technical systems:

No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

Not required.

Additional information:

The lists that were valid during the creation were used as a basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Information on basic physical and chemical properties

General Information	
----------------------------	--

Appearance:	
Form:	Liquid
Color:	Colorless to pale yellow
Odor:	Meaty
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	-79°C (-110°F)
Boiling point/Boiling range:	87-89 °C (189-192 °F)
Flash point:	-10°C (14°F)
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	
Decomposition temperature:	Not determined.
Auto igniting:	Not determined.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not determined.
Density at 20 °C (68 °F):	0.836 g/cm ³ (8.971 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	0.0 %
Other information	No further relevant information available.

10. STABILITY AND REACTIVITY:

Reactivity

Chemical stability

Thermal decomposition/conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

Conditions to avoid

No further relevant information available.

Incompatible materials:

No further relevant information available.

Hazardous decomposition products:

No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION:**Information on toxicological effects****Acute toxicity:****LD/LC50 Values that are relevant for classification:**

513-44-0 2-methylpropane-1-thiol

Oral LD50 7168mg/kg

Primary irritant effect:**On the skin:**

Irritant to skin and mucous membranes.

On the eye:

Irritating effect.

Sensitization:

No sensitizing effects known.

Additional toxicological information:**Carcinogenic categories****IARC (International Agency for Research on Cancer)**

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12. ECOLOGICAL INFORMATION:**Toxicity****Aquatic toxicity:**

No further relevant information available.

Persistence and degradability

No further relevant information available.

Behavior in environmental systems:**Bioaccumulative potential**

No further relevant information available.

Mobility in soil

No further relevant information available.

Additional ecological information:**General notes:**

Water hazard class 3: extremely hazardous for water. Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely quantities leak into the ground.

Results of PBT and vPvB assessment**PBT:**

Not applicable.

vPvB:

Not applicable.

Other adverse effects

No further relevant information available.

13. DISPOSAL RECOMMENDATIONS:**Waste treatment methods****Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:**Recommendation:**

Disposal must be made according to official regulations.

14. TRANSPORTATION INFORMATION:

UN-Number DOT, ADR, IMDG, IATA	UN2347
UN proper shipping name DOT	Butyl Mercaptan
ADR	2347 Butyl mercaptan
IMDG, IATA	BUTYL MERCAPTAN
Transport hazard class(es) DOT, ADR, IMDG, IATA Class	3 flammable liquids
Packing group DOT, ADR, IMDG, IATA	II

Environmental hazards: Marine pollutant:	No
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 Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
ADR Excepted quantities (EQ)	NOT SUBJECT TO ADR
IMDG Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN3334, Aviation regulated liquid, n.o.s., 9, III

15. REGULATORY INFORMATION:

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act):

Substance is not listed.

Proposition 65

Chemicals known to cause cancer:

Substance is not listed.

WARNING! This product contains a chemical known to the State of California to cause cancer:

Acetaldehyde CAS-no. 75-07-0

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Carcinogenic categories**EPA (Environmental Protection Agency)**

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

GHS label elements

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.



GHS02



GHS07

Signal word

Danger

Hazard statements

H332

Harmful if inhaled.

H225

Highly flammable liquid and vapor.

Precautionary statements

P210

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241

Use explosion proof electrical/ventilating/lighting equipment.

P261

Avoid breathing dust/fume/gas/mist/vapors/spray.

P303+P361+P353

IF ON SKIN: Remove/take off immediately all contaminated clothing.
Rinse skin with water/shower.

P403+P325

Store in a well-ventilated place. Keep cool.

P501

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

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION:

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Prepared By: M&U International LLC

REVISED: 07/17/2017