

Trade name: Methyl isobutyl carbinol
 subst.code: 96473
 Product no.: IHMP002

Version : 5 / GB

Status: 11.02.2003
 Date of printing : 20.02.2003

1.) Identification of the substance/preparation and company

Product details

Trade name

Methyl isobutyl carbinol

Use

chemical intermediates (including monomers)

Identification of the manufacturer / supplier

Address

Celanese Chemicals Europe GmbH
 Frankfurter Straße 111
 D-61476 Kronberg/Ts.

Information provided by / telephone

EHSA Europe FAX-Nr.: +49 (0) 208 693 2053

Emergency telephone number +49 (0) 69-305 6418

2.) Composition / information on ingredients

Chemical characterization

4-Methyl-2-pentanol,
 Methylamyl alcohol

Substance / product identification

CAS no.	108-11-2	Index no.	603-008-00-8
EINECS no.	203-551-7	ELINCS number :	

Hazardous ingredients

4-Methylpentan-2-ol

CAS no.	108-11-2
EINECS no.	203-551-7

Concentration	> 99	%-b.w.	%-b.w.
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Classification	R10
	Xi;R37

3.) Hazards possibilities

Hazard symbols

Xi	Irritant
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R phrases

10	Flammable.
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36/37/38	Irritating to eyes, respiratory system and skin.
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4.) First aid measures

General Information

Remove contaminated, soaked clothing immediately and dispose of safely.

After inhalation

Ensure supply of fresh air. By continuous complaints consult a physician.

After skin contact

When in contact with the skin, clean with soap and water. If skin problems persist, seek medical advice.

After eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

After ingestion

Rinse mouth thoroughly with water. Drink water in small gulps. When swallowed accidentally, do not induce vomiting, get medical help.

Advice to doctor

Symptoms

When vapours inhaled or swallowed, depending on the amount of intake, one has to reckon with the following symptoms: Headaches, Intoxication, Unconsciousness. CNS depression

Treatment

Treat symptomatically

5.) Fire-fighting measures

Suitable extinguishing media

Alcohol-resistant foam; Dry powder; Carbon dioxide; Water spray jet

Extinguishing media that must not be used for safety reasons

strong water jet

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases

In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO). Carbon dioxide (CO₂); Combustion gases of organic materials must in principle be graded as inhalation poisons.

Special protective equipment for firefighting

Use self-contained breathing apparatus.

Other information (chapter 5.)

Cool endangered environment with water spray jet.

6.) Accidental release measures

Personal precautions

Avoid contact with eyes and skin. Keep away sources of ignition. Ensure adequate ventilation.

Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust). Dispose of contaminated material as prescribed

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7.) Handling and storage

Handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary).

Advice on protection against fire and explosion

Keep away from sources of ignition - refrain from smoking. Take precautionary measures against static charges. In case of fire, emergency cooling with water spray should be available

Temperature class

T2

Use

Lubricants; Solvents; Cellulose and starch; Surfactants

Storage

Further information on storage conditions

Keep container tightly closed in a cool, well-ventilated place.

8.) Exposure controls / personal protection

Ingredients with occupational exposure limits to be monitored

4-Methylpentan-2-ol

Occupational Exposure Limits; EH40 (GB)

Value	25	ml/m ³	106	mg/m ³
STEL	40	ml/m ³	170	mg/m ³
Skin resorption / sensibilisation	Can be absorbed through skin.			
Edition/date	2002			

Personal protective equipment

Respiratory protection

Respiratory protection in case of insufficient exhaust ventilation or prolonged exposure

Hand protection

Chemical resistant gloves

Appropriate Material

Type

Nitrile rubber

Fleximax (Company COMASEC) or comparable article; or refer to glove producer recommendation.

evaluation

according to EN 374: level 6

Material thickness

appr. 0,55 mm

Time for permeation

> 480 min

Chemical resistant gloves

Appropriate Material

Type

Butyl rubber

Butylplus (Company COMASEC) or comparable article; or refer to glove producer recommendation.

evaluation

according to EN 374: level 6

Material thickness

appr. 0,3 mm

Time for permeation

> 480 min

Eye protection

Safety glasses

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Skin protection

protective clothing

General protective and hygiene measures

Avoid contact with eyes and skin. Do not inhale vapours. Hold emergency shower available.

Hygienic measures

Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

9.) Physical and chemical properties

Appearance

Form	liquid
Colour	colourless
Odour	alcohol-like

Safety data

Changes in physical state

type	Melting point	
Value	< -50	°C

Changes in physical state

type	Boiling point	
Value	132	°C
Pressure	1013	mbar

Flash point

Value	42.2	°C
Method	Setaflash	

Ignition temperature

Value	360,3	°C
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Lower explosion limit

Value	1	% vol
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Upper explosion limit

Value	5.5	% vol
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Vapour pressure

Value	4.7	Torr
Reference temperature	20	°C

Density

Value	0.808	g/cm ³
Reference temperature	20	°C

Solubility in water

Value	1.82	g/l
Reference temperature	20	°C

Octanol/water partition coefficient (log Pow)

Value	1,7
Method	calculated

Relative vapour density (air=1)

Value	3.53	
Reference temperature	20	°C

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Other information (chapter 9.)

Material floats on water. Vapours are heavier than air.

10.) Stability and reactivity

Hazardous decomposition products None

Hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.

Thermal decomposition

Remarks No decomposition if used as prescribed.

11.) Toxicological information

Acute toxicity

Acute oral toxicity

LD50 2600 mg/kg
Species rat

Acute dermal toxicity

LD50 2900 mg/kg
Species rabbit

Acute inhalational toxicity

LCLo 2000 ppm
Duration of exposure 8 h
Species rat

Irritant/corrosive effects

Irritant effect on skin

Species rabbit
evaluation irritant
Method OECD 404

Irritant effect on eyes

Species rabbit eye
evaluation slightly irritant
Method OECD 405

Other information

Irritates the respiratory organs. The product can cause skin and eye, irritation; Has a degreasing effect on skin; No experimental advice for genotoxicity in vitro.

12.) Ecological information

Data on elimination (persistence and degradability)

Biodegradability

Value 85
Duration of test 28 day(s)
Method OECD 301 F
evaluation readily degradable

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Ecotoxic effects

Fish toxicity

LC50 > 100 mg/l
Species Pimelphales promelas
Method OECD 203

Bacteria toxicity

EC50 > 100 mg/l
Method OECD 209

General information / ecology

Remarks Do not allow to enter soil, waterways or waste water canal. Do not release into waterways untreated.

13.) Disposal considerations

Product

Disposal required in compliance with all waste management related local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Uncleaned packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

14.) Transport information

Land transport ADR/RID

UN number 2053
Technical name Methyl isobutyl carbinol
Class 3
Packaging group III
Hazard no. 30

Inland waterways transport ADNR

Regulatory information ADNR: Container -Ship and Tanker
UN number 2053
Technical name Methyl isobutyl carbinol
Class 3
Packaging group III

Marine transport IMDG

UN number 2053
Proper shipping name Methyl isobutyl carbinol
Class 3
Packaging group III
EmS 3-02 (Amdt 30-00)
 F-E, S-D (Amdt 31-02)

Air transport ICAO/IATA

UN number 2053
Proper shipping name Methyl isobutyl carbinol
Class 3
Packaging group III

Dispatch by post

not recommended

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15.) Regulatory information

Hazardous component(s) to be indicated on label

4-Methylpentan-2-ol

Labelling in accordance with EC directives

"EC-labelling"

Hazard symbols

Xi Irritant

R phrases

10 Flammable.

37 Irritating to respiratory system.

S phrases

24/25 Avoid contact with skin and eyes.

Water Hazard Class (Ger.)

Class

1

Kenn-Nr.

5026

Source

Classification according to VwVwS, Annex 3

Other regulations, restrictions and prohibition regulations

Regulatory information

This classification following EG guidelines is also in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulation CHIP (as amended).

16.) Other information

Other information

Observe national and local legal requirements

R phrases

4-Methylpentan-2-ol

10 Flammable.

37 Irritating to respiratory system.

This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality.