

## SAFETY DATA SHEET

Creation Date 23-Mar-2012

Revision Date 14-Feb-2020

Revision Number 2

### 1. Identification

**Product Name** (+/-)-3-Methyl-2-butanol

**Cat No. :** L05347

**CAS No** 598-75-4  
**Synonyms** No information available

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

#### Details of the supplier of the safety data sheet

##### Company

Alfa Aesar  
Thermo Fisher Scientific Chemicals, Inc.  
30 Bond Street  
Ward Hill, MA 01835-8099  
Tel: 800-343-0660  
Fax: 800-322-4757  
**Email:** tech@alfa.com  
www.alfa.com

**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

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Acute Inhalation Toxicity - Vapors	Category 4

#### Label Elements

##### **Signal Word**

Warning

##### **Hazard Statements**

Flammable liquid and vapor  
Harmful if inhaled

**Precautionary Statements****Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Wear protective gloves/protective clothing/eye protection/face protection

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Call a POISON CENTER or doctor/physician if you feel unwell

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

**Fire**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Storage**

Store in a well-ventilated place. Keep cool

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

### 3. Composition/Information on Ingredients

Component	CAS No	Weight %
3-Methyl-2-butanol	598-75-4	>95

### 4. First-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Inhalation</b>	If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.
<b>Most important symptoms and effects</b>	Difficulty in breathing. . Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Water mist may be used to cool closed containers. Chemical foam. Water mist may be used to cool closed containers.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	39 °C / 102.2 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	347 °C / 656.6 °F
<b>Explosion Limits</b>	
<b>Upper</b>	8.00%
<b>Lower</b>	1.20%
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

**Specific Hazards Arising from the Chemical**

Flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Vapors may form explosive mixtures with air.

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

**Health**  
2

**Flammability**  
2

**Instability**  
0

**Physical hazards**  
N/A

## 6. Accidental release measures

<b>Personal Precautions</b>	Remove all sources of ignition. Take precautionary measures against static discharges.
<b>Environmental Precautions</b>	See Section 12 for additional Ecological Information.

<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Provide adequate ventilation. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
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## 7. Handling and storage

<b>Handling</b>	Avoid contact with skin and eyes. Do not breathe mist/vapors/spray. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Use only non-sparking tools. Keep away from open flames, hot surfaces and sources of ignition.
<b>Storage.</b>	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Flammables area. Keep container tightly closed in a dry and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Reducing Agent.

## 8. Exposure controls / personal protection

<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
3-Methyl-2-butanol		(Vacated) TWA: 100 ppm (Vacated) TWA: 360 mg/m <sup>3</sup> (Vacated) STEL: 125 ppm (Vacated) STEL: 450 mg/m <sup>3</sup>	IDLH: 500 ppm TWA: 100 ppm TWA: 360 mg/m <sup>3</sup> STEL: 125 ppm STEL: 450 mg/m <sup>3</sup>	

Legend

OSHA - Occupational Safety and Health Administration

**Engineering Measures** Ensure that eyewash stations and safety showers are close to the workstation location.  
Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** No protective equipment is needed under normal use conditions.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Physical State</b>	Liquid
<b>Appearance</b>	Colorless
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	112 °C / 233.6 °F @ 760 mmHg
<b>Flash Point</b>	39 °C / 102.2 °F
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid,gas)</b>	Not applicable
<b>Flammability or explosive limits</b>	
Upper	8.00%
Lower	1.20%
<b>Vapor Pressure</b>	3 hPa @ 20 °C
<b>Vapor Density</b>	No information available
<b>Specific Gravity</b>	0.810
<b>Solubility</b>	No information available
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	347 °C / 656.6 °F
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	3.8 mPa.s at 25 °C
<b>Molecular Formula</b>	C5 H12 O
<b>Molecular Weight</b>	88.15

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

**Incompatible Materials** Strong oxidizing agents, Reducing Agent

**Hazardous Decomposition Products** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

**Hazardous Polymerization** No information available.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### **Product Information**

#### **Component Information**

**Toxicologically Synergistic** No information available

#### **Products**

#### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
3-Methyl-2-butanol	598-75-4	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

Do not empty into drains.

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

UN-No UN1105  
Hazard Class 3  
Packing Group III

**TDG**

UN-No UN1105  
Hazard Class 3  
Packing Group III

**IATA**

UN-No UN1105  
Proper Shipping Name PENTANOLS  
Hazard Class 3  
Packing Group III

**IMDG/IMO**

UN-No UN1105  
Proper Shipping Name PENTANOLS  
Hazard Class 3  
Packing Group III

## 15. Regulatory information

**United States of America Inventory**

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
3-Methyl-2-butanol	598-75-4	X	ACTIVE	-

**Legend:**

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)**

Not applicable

**TSCA 12(b)** - Notices of Export

Not applicable

**International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
3-Methyl-2-butanol	598-75-4	-	X	209-950-2	X	X	X	X	-	KE-23576

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**U.S. Federal Regulations**

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

**CERCLA** Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
3-Methyl-2-butanol	X	-	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH** Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
3-Methyl-2-butanol	598-75-4	-	-	-

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
3-Methyl-2-butanol	598-75-4	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
3-Methyl-2-butanol	598-75-4	Not applicable	Not applicable	Not applicable	Not applicable

## 16. Other information

**Prepared By** Health, Safety and Environmental Department  
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**Print Date** 14-Feb-2020  
**Revision Summary** SDS authoring systems update, replaces ChemGes SDS No. 598-75-4/2.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the

date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**