

## SAFETY DATA SHEET

Revision Date 26-January-2018

Revision Number 3

### 1. Identification

**Product Name** 3-Hydroxy-3-methyl-2-butanone  
**Cat No. :** AC121440000; AC121440050; AC121440250  
**Synonyms** No information available  
**Recommended Use** Laboratory chemicals.  
**Uses advised against** Not for food, drug, pesticide or biocidal product use

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

##### Company

**Importer/Distributor**  
Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

##### **Manufacturer**

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

#### **Emergency Telephone Number**

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

**WHMIS 2015 Classification** Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

**Flammable liquids** Category 3

#### Label Elements

##### **Signal Word**

Warning

##### **Hazard Statements**

Flammable liquid and vapor



**Precautionary Statements****Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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 discharges

Wear protective gloves/protective clothing/eye protection/face protection

**Response**

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

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

**Storage**

Store in a well-ventilated place. Keep cool

**Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. Composition/Information on Ingredients

| Component                       | CAS-No   | Weight % |
|---------------------------------|----------|----------|
| 2-Butanone, 3-hydroxy-3-methyl- | 115-22-0 | 92       |

### 4. First-aid measures

|  |   |
|--|---|
| <b>Eye Contact</b>                     | Immediate medical attention is required. 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. Obtain medical attention. Take off contaminated clothing and shoes immediately. |
| <b>Inhalation</b>                      | Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.    |
| <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/effects</b> | Breathing difficulties. . 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>     | Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool closed containers exposed to fire with water spray. |
| <b>Unsuitable Extinguishing Media</b>   | No information available   |
| <b>Flash Point</b>                      | 42 °C / 107.6 °F   |
| <b>Method -</b>                         | No information available   |
| <b>Autoignition Temperature</b>         | No information available   |
| <b>Explosion Limits</b>                 |  |
| <b>Upper</b>                            | No data available  |
| <b>Lower</b>                            | No data available  |
| <b>Sensitivity to Mechanical Impact</b> | No information available   |

**Sensitivity to Static Discharge** No information available

### Specific Hazards Arising from the Chemical

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

### Hazardous Combustion Products

Thermal decomposition can lead to release of irritating gases and vapors 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

|               |                     |                    |                         |
|---------------|---------------------|--------------------|-------------------------|
| <b>Health</b> | <b>Flammability</b> | <b>Instability</b> | <b>Physical hazards</b> |
| 0             | 2                   | 0                  | N/A                     |

## 6. Accidental release measures

### Personal Precautions

Remove all sources of ignition. Take precautionary measures against static discharges.

### Environmental Precautions

See Section 12 for additional ecological information.

### Methods for Containment and Clean Up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Sweep up or vacuum up spillage and collect in suitable container for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7. Handling and storage

### Handling

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

### Storage

Flammables area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

## 8. Exposure controls / personal protection

### Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ventilation systems. Use explosion-proof electrical/ventilating/lighting/equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

#### Eye Protection

Safety glasses with side-shields

#### Hand Protection

Protective gloves

| Glove material | Breakthrough time | Glove thickness | Glove comments         |
|----------------|-------------------|-----------------|------------------------|
| Nitrile rubber | See manufacturers | -               | Splash protection only |
| Neoprene       | recommendations   |                 |                        |
| Natural rubber |                   |                 |                        |
| PVC            |                   |                 |                        |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

#### Respiratory Protection

No protective equipment is needed under normal use conditions.

#### Environmental exposure controls

No information available.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

## 9. Physical and chemical properties

|   |  |
|---|--|
| <b>Physical State</b>                         | Liquid                                   |
| <b>Appearance</b>                             | Light yellow                             |
| <b>Odor</b>                                   | Odorless                                 |
| <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>                    | 140 - 141 °C / 284 - 285.8 °F @ 760 mmHg |
| <b>Flash Point</b>                            | 42 °C / 107.6 °F                         |
| <b>Evaporation Rate</b>                       | No information available                 |
| <b>Flammability (solid,gas)</b>               | Not applicable                           |
| <b>Flammability or explosive limits</b>       |  |
| <b>Upper</b>                                  | No data available                        |
| <b>Lower</b>                                  | No data available                        |
| <b>Vapor Pressure</b>                         | No information available                 |
| <b>Vapor Density</b>                          | 3.52                                     |
| <b>Specific Gravity</b>                       | 0.970                                    |
| <b>Solubility</b>                             | No information available                 |
| <b>Partition coefficient; n-octanol/water</b> | No data available                        |
| <b>Autoignition Temperature</b>               | No information available                 |
| <b>Decomposition Temperature</b>              | No information available                 |
| <b>Viscosity</b>                              | No information available                 |
| <b>Molecular Formula</b>                      | C5 H10 O2                                |
| <b>Molecular Weight</b>                       | 102.13                                   |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available  |
| <b>Stability</b>                        | Stable under normal conditions.   |
| <b>Conditions to Avoid</b>              | Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.  |
| <b>Incompatible Materials</b>           | Oxidizing agents, Strong oxidizing agents, Strong acids, Strong bases, Strong reducing agents                                     |
| <b>Hazardous Decomposition Products</b> | Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ) |
| <b>Hazardous Polymerization</b>         | No information available.   |

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Acute Toxicity

**Product Information** No acute toxicity information is available for this product  
**Oral LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.  
**Dermal LD50** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.  
**Vapor LC50** Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

**Component Information**  
**Toxicologically Synergistic Products** No information available

### 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     |
|------------------------------------|----------|------------|------------|------------|------------|------------|
| 2-Butanone,<br>3-hydroxy-3-methyl- | 115-22-0 | 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** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility** No information available.

## 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 UN1224  
 Hazard Class 3  
 Packing Group III

**TDG**

UN-No UN1224  
 Hazard Class 3  
 Packing Group III

**IATA**

UN-No 1224  
 Proper Shipping Name KETONES, LIQUID, N.O.S.\*  
 Hazard Class 3  
 Packing Group III

**IMDG/IMO**

UN-No 1224  
 Proper Shipping Name KETONES, LIQUID, N.O.S.  
 Hazard Class 3  
 Packing Group III

## 15. Regulatory information

**International Inventories**

| Component                       | DSL | NDSL | TSCA | EINECS    | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|---------------------------------|-----|------|------|-----------|--------|-----|-------|------|------|-------|------|
| 2-Butanone, 3-hydroxy-3-methyl- | -   | X    | X    | 204-073-1 | -      |     | X     | X    | -    | -     | X    |

**Canada**

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

## 16. Other information

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**Revision Summary** This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals.

**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**