

# SAFETY DATA SHEET

# spectrum®



Revision date 28-June-2021

Revision Number 2

## 1. Identification

### Product identifier

**Product Name** 2-BUTANONE, REAGENT, ACS

### Other means of identification

**Product Code(s)** M1260

**UN/ID no** UN1193

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** No information available

**Restrictions on use** No information available

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

#### Supplier Address

Spectrum Chemical Mfg. Corp.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

### Emergency telephone number

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. Hazard(s) identification

### Classification

|  |             |
|--|-------------|
| Skin corrosion/irritation                        | Category 2  |
| Serious eye damage/eye irritation                | Category 2A |
| Specific target organ toxicity (single exposure) | Category 3  |
| Flammable liquids                                | Category 2  |

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

#### Hazard statements

Causes skin irritation  
Causes serious eye irritation  
May cause drowsiness or dizziness

Highly flammable liquid and vapor



**Appearance** Clear

**Physical state** Liquid

**Odor** No information available

#### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
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 discharge  
Wear protective gloves/eye protection/face protection  
Keep cool

#### Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
If skin irritation occurs: Get medical advice/attention  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
Wash contaminated clothing before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Call a POISON CENTER or doctor if you feel unwell  
In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

#### Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed  
Store locked up.

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

#### Other information

May be harmful if swallowed.

### 3. Composition/information on ingredients

#### Substance

| Chemical name       | CAS No  | Weight-% | Trade secret |
|---------------------|---------|----------|--------------|
| Methyl Ethyl Ketone | 78-93-3 | 100      | *            |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

#### Description of first aid measures

#### General advice

Show this safety data sheet to the doctor in attendance.

|   |  |
|---|--|
| <b>Inhalation</b>                         | Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.   |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.                            |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.   |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.  |
| <b>Self-protection of the first aider</b> | Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. |

#### **Most important symptoms and effects, both acute and delayed**

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |
|-----------------|--|

#### **Indication of any immediate medical attention and special treatment needed**

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

### **5. Fire-fighting measures**

|  |   |
|--|---|
| <b>Suitable Extinguishing Media</b><br><b>Large Fire</b> | Dry chemical. Carbon dioxide (CO <sub>2</sub> ). water spray. Alcohol resistant foam.<br>CAUTION: Use of water spray when fighting fire may be inefficient.   |
| <b>Unsuitable extinguishing media</b>                    | Do not scatter spilled material with high pressure water streams.   |
| <b>Specific hazards arising from the chemical</b>        | risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| <b>Explosion data</b>                                    |   |
| <b>Sensitivity to mechanical impact</b>                  | none.   |
| <b>Sensitivity to static discharge</b>                   | yes.  |
| <b>Special protective equipment for fire-fighters</b>    | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.  |

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

|                             |  |
|-----------------------------|--|
| <b>Personal precautions</b> | Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. |
| <b>Other information</b>    | Ventilate the area. Refer to protective measures listed in Sections 7 and 8.   |

#### **Methods and material for containment and cleaning up**

|                                |   |
|--------------------------------|---|
| <b>Methods for containment</b> | Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor |
|--------------------------------|---|

suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

#### Methods for cleaning up

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

#### Advice on safe handling

Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

### Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

| Chemical name                  | ACGIH TLV         | OSHA PEL                                 | NIOSH IDLH |
|--------------------------------|-------------------|--|------------|
| Methyl Ethyl Ketone<br>78-93-3 | No data available | 200 ppm TWA<br>590 mg/m <sup>3</sup> TWA | -          |

### Appropriate engineering controls

#### Engineering controls

Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Tight sealing safety goggles.

#### Hand protection

Wear suitable gloves. Impervious gloves.

#### Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

#### Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

#### General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|                |                          |
|----------------|--------------------------|
| Physical state | Liquid                   |
| Appearance     | Clear                    |
| Color          | Colorless                |
| Odor           | No information available |
| Odor threshold | No information available |

| <u>Property</u>                        | <u>Values</u>  | <u>Remarks • Method</u> |
|--|--|-------------------------|
| pH                                     | no data available  | None known              |
| Melting point / freezing point         | -86 °C / -122.8 °F   | None known              |
| Boiling point / boiling range          | 80 °C / 176 °F   | None known              |
| Flash point                            | -9 °C / 15.8 °F  | CC (closed cup)         |
| Evaporation rate                       | no data available  | None known              |
| Flammability (solid, gas)              | no data available  | None known              |
| Flammability Limit in Air              |  | None known              |
| Upper flammability or explosive limits | 10%  |                         |
| Lower flammability or explosive limits | 1.8%   |                         |
| Vapor pressure                         | 10.4   | None known              |
| Vapor density                          | 2.4  | None known              |
| Relative density                       | 0.8  | None known              |
| Water solubility                       | Soluble in water   | None known              |
| Solubility(ies)                        | Miscible in Ether<br>Miscible with Acetone<br>Miscible in Benzene<br>Miscible with Ethanol<br>Miscible with Chloroform<br>Miscible with many organic solvents<br>Soluble in Oils | None known              |
| Partition coefficient                  | No data available  | None known              |
| Autoignition temperature               | 404 °C / 759.2 °F  | None known              |
| Decomposition temperature              |  | None known              |
| Kinematic viscosity                    | no data available  | None known              |
| Dynamic viscosity                      | No data available  | None known              |

### Other information

|                      |                          |
|----------------------|--------------------------|
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening point      | No information available |
| Molecular weight     | No information available |
| VOC Content (%)      | No information available |
| Liquid Density       | No information available |
| Bulk density         | No information available |

## 10. Stability and reactivity

|                                    |  |
|------------------------------------|--|
| Reactivity                         | No information available.                            |
| Chemical stability                 | Stable under normal conditions.                      |
| Possibility of hazardous reactions | None under normal processing.                        |
| Conditions to avoid                | Heat, flames and sparks.                             |
| Incompatible materials             | Strong acids. Strong bases. Strong oxidizing agents. |
| Hazardous decomposition products   | None known based on information supplied.            |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness.                                |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.                                    |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).   |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed. |

### Symptoms related to the physical, chemical and toxicological characteristics

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |
|-----------------|--|

### Acute toxicity

#### Numerical measures of toxicity

| Chemical name                  | Oral LD50            | Dermal LD50             | Inhalation LC50         |
|--------------------------------|----------------------|-------------------------|-------------------------|
| Methyl Ethyl Ketone<br>78-93-3 | = 2483 mg/kg ( Rat ) | = 5000 mg/kg ( Rabbit ) | 23500 mg/m <sup>3</sup> |

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

|  |  |
|--|--|
| <b>Skin corrosion/irritation</b>         | Classification based on data available for ingredients. Irritating to skin.            |
| <b>Serious eye damage/eye irritation</b> | Classification based on data available for ingredients. Causes serious eye irritation. |
| <b>Respiratory or skin sensitization</b> | No information available.  |
| <b>Germ cell mutagenicity</b>            | No information available.  |
| <b>Reproductive toxicity</b>             | No information available.  |
| <b>STOT - single exposure</b>            | May cause drowsiness or dizziness.   |
| <b>STOT - repeated exposure</b>          | No information available.  |
| <b>Target organ effects</b>              | respiratory system, Eyes, Skin, central nervous system.                                |
| <b>Aspiration hazard</b>                 | No information available.  |
| <b>Other adverse effects</b>             | No information available.  |
| <b>Interactive effects</b>               | No information available.  |

## 12. Ecological information

### Ecotoxicity

| Chemical name                  | Algae/aquatic plants | Fish                                       | Toxicity to microorganisms | Crustacea                                     |
|--------------------------------|----------------------|--|----------------------------|---|
| Methyl Ethyl Ketone<br>78-93-3 | -                    | LC50: 3130 - 3320mg/L<br>(96h, Pimephales) | -                          | EC50: 4025 - 6440mg/L<br>(48h, Daphnia magna) |

|  |  |           |  |  |
|--|--|-----------|--|--|
|  |  | promelas) |  | EC50: =5091mg/L (48h, Daphnia magna) EC50: >520mg/L (48h, Daphnia magna) |
|--|--|-----------|--|--|

**Persistence and degradability** No information available.  
**Bioaccumulation** Inherently biodegradable.

**Component Information**

| Chemical name                  | Partition coefficient |
|--------------------------------|-----------------------|
| Methyl Ethyl Ketone<br>78-93-3 | 0.3                   |

**Other adverse effects** No information available.

**13. Disposal considerations**

**Waste treatment methods**

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

**14. Transport information**

**DOT**

**UN/ID no** UN1193  
**Proper Shipping Name:** Ethyl methyl ketone  
**Hazard class** 3  
**Packing group:** II  
**Special Provisions** IB2, T4, TP1  
**Marine Pollutant** Severe Marine Pollutant  
**Description:** UN1193, Ethyl methyl ketone, 3, II  
**Emergency Response Guide Number** 127

**TDG**

**UN-No:** UN1193  
**Proper Shipping Name:** Ethyl methyl ketone  
**Hazard class** 3  
**Packing Group:** II  
**Description:** UN1193, Ethyl methyl ketone, 3, II

**MEX**

**UN-No** UN1193  
**Proper Shipping Name** Ethyl methyl ketone  
**Hazard class** 3  
**Packing Group** II  
**Description** UN1193, Ethyl methyl ketone, 3, II

**ICAO (air)**

**UN-No:** UN1193  
**Proper Shipping Name:** Ethyl methyl ketone  
**Hazard class** 3  
**Packing Group:** II  
**Description:** UN1193, Ethyl methyl ketone, 3, II

**IATA**

**UN number** UN1193

**Proper Shipping Name:** Ethyl methyl ketone  
**Transport hazard class(es)** 3  
**Packing group** II  
**Description:** UN1193, Ethyl methyl ketone, 3, II

#### IMDG

**UN number** UN1193  
**Proper shipping name** Ethyl methyl ketone  
**Transport hazard class(es)** 3  
**Packing group** II  
**EmS-No** F-E, S-D  
**Marine pollutant** NP1  
**Description** UN1193, Ethyl methyl ketone, 3, II, (-9°C c.c.)

#### RID

**UN number** UN1193  
**Proper Shipping Name:** Ethyl methyl ketone  
**Transport hazard class(es)** 3  
**Packing group** II  
**Classification code** F1  
**Description:** UN1193, Ethyl methyl ketone, 3, II  
**Labels** 3

#### ADR

**UN number** 1193  
**Proper Shipping Name:** Ethyl methyl ketone  
**Transport hazard class(es)** 3  
**Packing group** II  
**Classification code** F1  
**Tunnel restriction code** (D/E)  
**Description:** 1193, Ethyl methyl ketone, 3, II, (D/E)  
**Labels** 3

#### ADN

**UN/ID No** UN1193  
**Proper shipping name** Ethyl methyl ketone  
**Transport hazard class(es)** 3  
**Packing Group** II  
**Classification code** F1  
**Description** UN1193, Ethyl methyl ketone, 3, II  
**Hazard label(s)** 3  
**Limited quantity (LQ)** 1 L  
**ventilation** VE01  
**Equipment Requirements** PP, EX, A

## 15. Regulatory information

### International Inventories

**TSCA** Complies

**DSL/NDSL** Complies

**EINECS/ELINCS** Complies

**ENCS** This product complies with ENCS:

**IECSC** This product complies with China:

**KECL** Complies

**PICCS** Complies

**AICS** All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

#### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List



**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

| Chemical name                  | Hazardous Substances RQs             | Extremely Hazardous Substances RQs |
|--------------------------------|--------------------------------------|------------------------------------|
| Methyl Ethyl Ketone<br>78-93-3 | 5000 lb final RQ<br>2270 kg final RQ | -                                  |

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

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

This product does not contain any substances regulated under applicable state right-to-know regulations

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

**NFPA**

**Health hazards** 2

**Flammability** 3

**Instability** 0

**Physical and chemical properties** -

**HMIS**

**Health hazards** 2

**Flammability** 3

**Physical hazards** 0

**Personal protection** X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 28-June-2021  
**Revision Note** No information available.

**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 Safety Data Sheet**