

## SAFETY DATA SHEET

Creation Date 24-November-2010

Revision Date 25-December-2021

Revision Number 6

### 1. Identification

**Product Name** Camphene, remainder mainly alpha-fenchene

**Cat No. :** AC295570000; AC295570010; AC295570025

**CAS-No** 79-92-5

**Synonyms** 3,3-Dimethyl-2-Methylenenorcamphene.; Bicyclo(2.2.1)Heptane, 2,2-Dimethyl-3-Methylene-

**Recommended Use** Laboratory chemicals.

**Uses advised against** 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 Company  
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)

|  |            |
|--|------------|
| <b>Flammable solids</b>                          | Category 2 |
| <b>Serious Eye Damage/Eye Irritation</b>         | Category 2 |
| <b>Combustible Dusts</b>                         | Category 1 |
| <b>Physical Hazards Not Otherwise Classified</b> | Category 1 |
| May form explosive peroxides                     |            |

#### Label Elements

##### **Signal Word**

Danger

##### **Hazard Statements**

Flammable solid  
May form combustible dust concentrations in air

Causes serious eye irritation  
May form explosive peroxides



### Precautionary Statements

#### Prevention

Keep container tightly closed  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Ground/bond container and receiving equipment  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection

#### Response

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion  
IF SWALLOWED: Immediately call a POISON CENTER/doctor  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Do NOT induce vomiting  
If eye irritation persists: Get medical advice/attention  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

#### Storage

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

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Other Hazards

Very toxic to aquatic life with long lasting effects

## 3. Composition/Information on Ingredients

| Component  | CAS-No   | Weight % |
|--|----------|----------|
| Camphene   | 79-92-5  | >80      |
| Bicyclo[2.2.1]heptane, 7,7-dimethyl-2-methylene- | 471-84-1 | <20      |

## 4. First-aid measures

|  |   |
|--|---|
| <b>General Advice</b>                  | If symptoms persist, call a physician.  |
| <b>Eye Contact</b>                     | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.   |
| <b>Skin Contact</b>                    | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. |
| <b>Inhalation</b>                      | Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.      |
| <b>Ingestion</b>                       | Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.             |
| <b>Most important symptoms/effects</b> | None reasonably foreseeable. Inhalation of high vapor concentrations may cause                                    |

**Notes to Physician** symptoms like headache, dizziness, tiredness, nausea and vomiting  
Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 36 °C / 96.8 °F

**Method -** No information available

**Autoignition Temperature** >255 °C / >491 °F

### Explosion Limits

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

### Specific Hazards Arising from the Chemical

Flammable. Dust can form an explosive mixture with air. Do not allow run-off from fire-fighting to enter drains or water courses. Fine dust dispersed in air may ignite.

### 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**  
3

**Instability**  
3

**Physical hazards**  
N/A

## 6. Accidental release measures

**Personal Precautions** Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong bases.

## 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**

Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

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** Goggles  
**Hand Protection** Protective gloves

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

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Recommended Filter type:** Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls**

Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

|   |  |
|---|--|
| <b>Physical State</b>                         | Low melting solid Solid                  |
| <b>Appearance</b>                             | White                                    |
| <b>Odor</b>                                   | Petroleum distillates                    |
| <b>Odor Threshold</b>                         | No information available                 |
| <b>pH</b>                                     | 5.5 sat aq sol (22°C)                    |
| <b>Melting Point/Range</b>                    | 42 °C / 107.6 °F                         |
| <b>Boiling Point/Range</b>                    | 159 - 160 °C / 318.2 - 320 °F @ 760 mmHg |
| <b>Flash Point</b>                            | 36 °C / 96.8 °F                          |
| <b>Evaporation Rate</b>                       | Not applicable                           |
| <b>Flammability (solid,gas)</b>               | No information available                 |
| <b>Flammability or explosive limits</b>       |  |
| <b>Upper</b>                                  | No data available                        |
| <b>Lower</b>                                  | No data available                        |
| <b>Vapor Pressure</b>                         | 3 mmHg @ 20 °C                           |
| <b>Vapor Density</b>                          | Not applicable                           |
| <b>Specific Gravity</b>                       | No information available                 |
| <b>Solubility</b>                             | Insoluble in water                       |
| <b>Partition coefficient; n-octanol/water</b> | No data available                        |
| <b>Autoignition Temperature</b>               | >255 °C / >491 °F                        |

|                           |                          |
|---------------------------|--------------------------|
| Decomposition Temperature | No information available |
| Viscosity                 | Not applicable           |
| Molecular Formula         | C10 H16                  |
| Molecular Weight          | 136.24                   |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available                |
| <b>Stability</b>                        | Stable under recommended storage conditions.              |
| <b>Conditions to Avoid</b>              | Excess heat. Incompatible products. Avoid dust formation. |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong bases                     |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )   |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.                  |
| <b>Hazardous Reactions</b>              | None under normal processing.                             |

## 11. Toxicological information

### Acute Toxicity

#### Product Information

**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.

**Mist LC50** Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

#### Component Information

| Component | LD50 Oral             | LD50 Dermal                  | LC50 Inhalation |
|-----------|-----------------------|------------------------------|-----------------|
| Camphene  | LD50 > 5 g/kg ( Rat ) | LD50 > 2500 mg/kg ( Rabbit ) | Not listed      |

**Toxicologically Synergistic Products** No information available

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

|                        |  |
|------------------------|--|
| <b>Irritation</b>      | Irritating to eyes   |
| <b>Sensitization</b>   | No information available   |
| <b>Carcinogenicity</b> | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Component  | CAS-No   | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|--|----------|------------|------------|------------|------------|------------|
| Camphene   | 79-92-5  | Not listed | Not listed | Not listed | Not listed | Not listed |
| Bicyclo[2.2.1]heptane, 7,7-dimethyl-2-methylene- | 471-84-1 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** Not mutagenic in AMES Test

**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** Inhalation of high vapor concentrations may cause symptoms like 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

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Component | Freshwater Algae                                    | Freshwater Fish   | Microtox   | Water Flea                              |
|-----------|---|---|------------|---|
| Camphene  | EC50: > 1000 mg/L, 72h<br>(Desmodesmus subspicatus) | LC50: = 150 mg/L, 96h static<br>(Brachydanio rerio)<br>LC50: = 0.72 mg/L, 96h<br>flow-through (Brachydanio rerio) | Not listed | EC50: = 22 mg/L, 48h<br>(Daphnia magna) |

**Persistence and Degradability** May persist

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Is not likely mobile in the environment due its low water solubility.

| Component | log Pow |
|-----------|---------|
| Camphene  | 4.5     |

## 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** UN1325  
**Proper Shipping Name** FLAMMABLE SOLIDS, ORGANIC, N.O.S.  
**Technical Name** Camphene  
**Hazard Class** 4.1  
**Packing Group** II

### TDG

**UN-No** UN1325  
**Proper Shipping Name** Flammable solid, organic, n.o.s.  
**Hazard Class** 4.1  
**Packing Group** II

### IATA

**UN-No** UN1325  
**Proper Shipping Name** Flammable solid, organic, n.o.s.  
**Hazard Class** 4.1  
**Packing Group** II

### IMDG/IMO

**UN-No** UN1325  
**Proper Shipping Name** Flammable solid, organic, n.o.s.  
**Hazard Class** 4.1  
**Packing Group** II

## 15. Regulatory information

**International Inventories**

| Component  | CAS-No   | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS    | ELINCS | NLP |
|--|----------|-----|------|------|---|-----------|--------|-----|
| Camphene   | 79-92-5  | X   | -    | X    | ACTIVE  | 201-234-8 | -      | -   |
| Bicyclo[2.2.1]heptane, 7,7-dimethyl-2-methylene- | 471-84-1 | -   | -    | -    | -   | -         | -      | -   |

| Component  | CAS-No   | IECSC | KECL     | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|--|----------|-------|----------|------|------|------|------|-------|-------|
| Camphene   | 79-92-5  | X     | KE-11517 | X    | X    | X    | X    | X     | X     |
| Bicyclo[2.2.1]heptane, 7,7-dimethyl-2-methylene- | 471-84-1 | X     | -        | -    | -    | X    | -    | X     | -     |

**Legend:**

X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**IECSC** - Chinese Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**ENCS** - Japanese Existing and New Chemical Substances**AICS** - Australian Inventory of Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**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)).

**Other International Regulations****Authorisation/Restrictions according to EU REACH****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) |
|--|----------|----------------|------------------------------|---------------------------|--|
| Camphene   | 79-92-5  | Listed         | Not applicable               | Not applicable            | Not applicable                             |
| Bicyclo[2.2.1]heptane, 7,7-dimethyl-2-methylene- | 471-84-1 | 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) |
|--|----------|---|--|----------------------------|------------------------------------|
| Camphene   | 79-92-5  | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |
| Bicyclo[2.2.1]heptane, 7,7-dimethyl-2-methylene- | 471-84-1 | Not applicable  | Not applicable   | Not applicable             | Not applicable                     |

## 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**