

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020





## 1 Identification

- **Product identifier**
- **Trade name:** Camphor, Flakes
- **Product code:** CA6000
- **CAS Number:**  
76-22-2
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Aqua Laboratories, Inc.  
8 Industrial Way  
Amesbury, MA 01913  
(978) 388-3989
- **Distributor:**  
AquaPhoenix Scientific  
860 Gitts Run Road,  
Hanover, PA 17331  
(717) 632-1291
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**

Flam. Sol. 2	H228 Flammable solid.
Acute Tox. 4	H302 Harmful if swallowed.
Acute Tox. 4	H332 Harmful if inhaled.
Eye Dam. 1	H318 Causes serious eye damage.
Skin Sens. 1	H317 May cause an allergic skin reaction.
STOT SE 2	H371 May cause damage to the lung. Route of exposure: Inhalation.
Combustible Dust	May form combustible dust concentrations in air.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS02 GHS05 GHS07 GHS08
- **Signal word:** Danger
- **Hazard statements:**  
H228 Flammable solid.

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H302+H332 Harmful if swallowed or if inhaled.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H371 May cause damage to the lung. Route of exposure: Inhalation.

May form combustible dust concentrations in air.

**Precautionary statements:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260 Do not breathe dust.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P330 Rinse mouth.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P311 IF exposed or concerned: Call a poison center/doctor.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards** There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

**Chemical characterization: Substances**

**CAS No. Description**

76-22-2 bornan-2-one

## 4 First-aid measures

**Description of first aid measures**

**General information:**

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

**After inhalation:**

Supply fresh air.

Seek immediate medical advice.

Provide oxygen treatment if affected person has difficulty breathing.

If experiencing respiratory symptoms: Call a doctor.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

**After eye contact:**

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:**

Rinse out mouth and then drink plenty of water.

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Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Allergic reactions

Nausea in case of ingestion.

May cause gastro-intestinal irritation if ingested.

Breathing difficulty

Coughing

Allergic reactions

Strong irritant with the danger of severe eye injury.

· **Danger:**

Harmful if inhaled.

Causes serious eye damage.

Harmful if swallowed.

May cause damage to the lung. Route of exposure: Inhalation.

May cause sensitization by skin contact.

· **Indication of any immediate medical attention and special treatment needed:**

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

If medical advice is needed, have product container or label at hand.

## 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** Water stream.

· **Special hazards arising from the substance or mixture**

Flammable solid.

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information:**

Eliminate all ignition sources if safe to do so.

Cool endangered containers with water fog.

## 6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

Protect from heat.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

· **Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

Sweep up and place into an appropriate container.  
Send for recovery or disposal in suitable receptacles.

· **Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

· **Handling**

· **Precautions for safe handling:**

Thorough dedusting.  
Any deposit of dust which cannot be avoided must be regularly removed.  
Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.  
Use only in well ventilated areas.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.  
Protect from heat.  
Flammable solid.

· **Conditions for safe storage, including any incompatibilities**

· **Requirements to be met by storerooms and receptacles:**

Store in a cool location.  
Avoid storage near extreme heat, ignition sources or open flame.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.  
Store away from oxidizing agents.  
Store away from reducing agents.

· **Further information about storage conditions:**

Protect from sunlight.  
Keep containers tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.

· **Specific end use(s)** No relevant information available.

## 8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**76-22-2 bornan-2-one**

PEL (USA)	Long-term value: 2 mg/m <sup>3</sup>
REL (USA)	Long-term value: 2 mg/m <sup>3</sup>
TLV (USA)	Short-term value: 19 mg/m <sup>3</sup> , 3 ppm Long-term value: 12 mg/m <sup>3</sup> , 2 ppm
EL (Canada)	Short-term value: 3 ppm Long-term value: 2 ppm
EV (Canada)	Short-term value: 19 mg/m <sup>3</sup> , 3 ppm

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LMPE (Mexico)

Long-term value: 12 mg/m<sup>3</sup>, 2 ppm

Short-term value: 3 ppm

Long-term value: 2 ppm

A4

## · Exposure controls

### · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

### · Engineering controls: Provide adequate ventilation.

### · Breathing equipment:

Use suitable respiratory protective device when high concentrations are present.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

### · Protection of hands:



Protective gloves

### · Material of gloves

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Natural rubber, NR

Neoprene gloves

Nitrile rubber, NBR

Sensibilization by the components in the glove materials is possible.

### · Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

### · Body protection: Protective work clothing

### · Limitation and supervision of exposure into the environment

No relevant information available.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · Appearance:

Form: Solid

Color: White

· Odor: Characteristic

· Odor threshold: Not determined.

· pH-value: Not applicable.

· Melting point/Melting range: 176 °C (348.8 °F)

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· <b>Boiling point/Boiling range:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Flammable solid.
· <b>Auto-ignition temperature:</b>	Not determined.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Danger of explosion:</b>	May form combustible dust concentrations in air.
· <b>Explosion limits</b> Lower:	Not determined.
Upper:	Not determined.
· <b>Oxidizing properties:</b>	Non-oxidizing.
· <b>Vapor pressure at 20 °C (68 °F):</b>	0.27 hPa (0.2 mm Hg)
· <b>Density:</b> Relative density:	Not determined.
Vapor density:	Not applicable.
Evaporation rate:	Not applicable.
· <b>Solubility in / Miscibility with</b> Water:	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity</b> Dynamic:	Not applicable.
Kinematic:	Not applicable.
· <b>Other information</b>	No relevant information available.

## 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Reacts with oxidizing agents.  
Flammable solid.  
Reacts with reducing agents.  
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid**  
Keep ignition sources away - Do not smoke.  
Store away from oxidizing agents.
- **Incompatible materials**  
Oxidizing agents.  
Reducing agents.
- **Hazardous decomposition products**  
Under fire conditions only:

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Carbon monoxide and carbon dioxide

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## 11 Toxicological information

### · Information on toxicological effects

#### · Acute toxicity:

Harmful if swallowed.

Harmful if inhaled.

#### · LD/LC50 values that are relevant for classification:

##### ATE (Acute Toxicity Estimate)

Oral	LD50	1310 mg/kg
Inhalative	LC50/4h	1.5 mg/l

#### · Primary irritant effect:

· **On the skin:** Based on available data, the classification criteria are not met.

· **On the eye:** Strong irritant with the danger of severe eye injury.

· **Sensitization:** Sensitization possible through skin contact.

#### · IARC (International Agency for Research on Cancer):

Substance is not listed.

#### · NTP (National Toxicology Program):

Substance is not listed.

#### · OSHA-Ca (Occupational Safety & Health Administration):

Substance is not listed.

#### · Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

#### · Acute effects (acute toxicity, irritation and corrosivity):

Harmful if swallowed.

Harmful if inhaled.

Causes serious eye damage.

May cause damage to the lung. Route of exposure: Inhalation.

· **Repeated dose toxicity:** No relevant information available.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** May cause damage to the lung. Route of exposure: Inhalation.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

### · Toxicity

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

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- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |   |              |
|---|--------------|
| · <b>UN-Number</b>  |              |
| · <b>DOT, ADR/RID/ADN, IMDG, IATA</b>   | UN2717       |
| · <b>UN proper shipping name</b>  |              |
| · <b>DOT, IMDG, IATA</b>  | CAMPBOR      |
| · <b>ADR/RID/ADN</b>  | 2717 CAMPHER |
| · <b>Transport hazard class(es)</b>   |              |
| · <b>DOT</b>  |              |
|    |              |
| · <b>Class</b>  | 4.1          |
| · <b>Label</b>  | 4.1          |
| · <b>ADR/RID/ADN</b>  |              |
|   |              |
| · <b>Class</b>  | 4.1 (F1)     |
| · <b>Label</b>  | 4.1          |

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· **IMDG, IATA**



· **Class** 4.1  
 · **Label** 4.1

· **Packing group**  
 · **DOT, ADR/RID/ADN, IMDG, IATA** III

· **Environmental hazards** Not applicable.

· **Special precautions for user** Warning: Flammable solids, self-reactive substances and solid desensitised explosives

· **Hazard identification number (Kemler code):** 40  
 · **EMS Number:** 4.1-06

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
 · **United States (USA)**  
 · **SARA**

· **Section 302 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed or exempt.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity for females:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **EPA (Environmental Protection Agency):**

Substance is not listed.

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· **IARC (International Agency for Research on Cancer):**

Substance is not listed.

· **Canadian Domestic Substances List (DSL):**

Substance is not listed.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Flam. Sol. 2: Flammable solids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 2: Specific target organ toxicity (single exposure) – Category 2

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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