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MSDS Material Safety Data Sheet

24 Hour Emergency Telephone: 800-358-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. and Canada
Chemtrec: 202 483-7616

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance

L-Camphor

SDS Number: C0594 --- *Effective Date: 12/08/96*

. Product Identification

Synonyms: Gum Camphor; 2-Camphanone
CAS No.: 21368-68-3
Molecular Weight: 152.24
Chemical Formula: C10H16O
Product Codes: E293

. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Camphor	76-22-2	90 - 100%	Yes

. Hazards Identification

Emergency Overview

WARNING! COMBUSTIBLE. CAUSES IRRITATION. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. EXCEPTIONAL HEALTH HAZARD. BEFORE USING, READ MATERIAL SAFETY DATA SHEET (MSDS) FOR THIS MATERIAL. TARGET ORGAN(S): Nasal septum, eyes, skin, respiratory system.

J.T. Baker SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 3 - Severe (Life)
Flammability Rating: 2 - Moderate
Reactivity Rating: 0 - None
Contact Rating: 2 - Moderate
Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER
Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:
Coughing, chest pains, irritation of nose and throat, irritation of upper respiratory tract, epileptic seizures.

Ingestion:
Headache, nausea, vomiting, dizziness, gastrointestinal irritation, epileptic seizures, and may be fatal.

Skin Contact:
Irritation, epileptic seizures, May be absorbed through the skin with possible systemic effects.

Eye Contact:
Irritation, epileptic seizures.

Chronic Exposure:
No information found.

Aggravation of Pre-existing Conditions:
Kidney disorders, liver disorders, heart disorders, epilepsy.

First Aid Measures

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Prompt action is essential.

Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:
In case of contact, flush skin with water.

Eye Contact:
In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

. Fire Fighting Measures

Fire:
Flash point: 66C (151F) CC Autoignition temperature: 466C (871F) Flammable limits in air % by volume: lel: 0.6; uel: 3.5

Explosion:
Gives off flammable vapors. Vapors may form explosive mixture with air. Closed containers exposed to heat may explode. Contact with strong oxidizers may cause fire.

Fire Extinguishing Media:
Use alcohol foam, dry chemical or carbon dioxide. (Water may be ineffective.)

Special Information:
Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move exposed containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

. Accidental Release Measures

Wear self-contained breathing apparatus and full protective clothing. Shut off ignition sources; no flares, smoking, or flames in area. Carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

. Handling and Storage

Keep container tightly closed. Store in cool, dry, well-ventilated area away from heat, sparks, or flame. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

. Exposure Controls/Personal Protection

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL): 2 mg/m3 (TWA) -ACGIH Threshold Limit Value (TLV): 2 ppm (TWA), 3 ppm (STEL)

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):
For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Physical and Chemical Properties

Appearance:
Colorless or white Crystalline solid.

Odor:
Aromatic odor.

Solubility:
Slight (0.1-1%)

Specific Gravity:
0.99

pH:
No information found.

% Volatiles by volume @ 21C (70F):
N/A

Boiling Point:
207C (405F)

Melting Point:
180C (356F)

Vapor Density (Air=1):
5.2

Vapor Pressure (mm Hg):
.18 @ 20C (68F)

Evaporation Rate (BuAc=1):
<1

0. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
Carbon monoxide, carbon dioxide.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
Strong oxidizing agents, metallic salts, combustible materials, organic materials.

Conditions to Avoid:
Heat, flame, other sources of ignition, sunlight.

1. Toxicological Information

--------\Cancer Lists\----------

Ingredient	---NTP Carcinogen--- Known	Anticipated	IARC Category
Camphor (76-22-2)	No	No	None

2. Ecological Information

Environmental Fate:
No information found.

Environmental Toxicity:
No information found.

3. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

4. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: CAMPHOR
Hazard Class: 4.1
UN/NA: UN2717
Packing Group: III
Information reported for product/size: 500G

International (Water, I.M.O.)

Proper Shipping Name: CAMPHOR
Hazard Class: 4.1
UN/NA: UN2717
Packing Group: III
Information reported for product/size: 500G

International (Air, I.C.A.O.)

Proper Shipping Name: CAMPHOR
Hazard Class: 4.1
UN/NA: UN2717
Packing Group: III
Information reported for product/size: 500G

5. Regulatory Information

--------\Chemical Inventory Status - Part 1\---------------------------------

Ingredient	TSCA	EC	Japan	Australia
Camphor (76-22-2)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\---------------------------------

Ingredient	Korea	--Canada-- DSL	NDSL	Phil.
Camphor (76-22-2)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\----------------

Ingredient	-SARA 302- RQ	TPQ	------SARA 313------ List	Chemical Catg.
Camphor (76-22-2)	No	No	No	No

----\Federal, State & International Regulations - Part 2\----------------

Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)

Camphor (76-22-2)	No	No	Yes

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No
Reactivity: No (Pure / Solid)

Australian Hazchem Code: 1[Z]
Poison Schedule: S6

WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

6. Other Information

Label Hazard Warning:
WARNING! COMBUSTIBLE. CAUSES IRRITATION. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. EXCEPTIONAL HEALTH HAZARD. BEFORE USING, READ MATERIAL SAFETY DATA SHEET (MSDS) FOR THIS MATERIAL. TARGET ORGAN(S): Nasal septum, eyes, skin, respiratory system.

Label Precautions:
Keep away from heat, sparks, flame. Avoid contact with eyes, skin, clothing. Keep in tightly closed container. Wash thoroughly after handling. In case of fire, soak with water. In case of spill, sweep up and remove. Flush spill area with water.

Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Prompt action is essential. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Product Use:
Laboratory Reagent.

Revision Information:
Pure. New 16 section MSDS format, all sections have been revised.

Disclaimer:
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