

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Exofin® Mastic Adhesive

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Adhesive

1.3. Details of the supplier of the safety data sheet

 Chemence Medical, Inc.
 200 Technology drive,
 Alpharetta, GA 30005 - United States
 T 770-664-6624; - F 770-664-6620
CS@Chemence-US.com - <http://www.Chemence-US.com>

1.4. Emergency telephone number

Emergency number : 1-800-424-9300; CHEMTREC® International Emergency number: 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

 Flam. Liq. 2 H225
 Eye Irrit. 2A H319
 Skin Sens. 1 H317

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :

 H225 - Highly flammable liquid and vapour
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation

Precautionary statements (GHS-US) :

 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P233 - Keep container tightly closed
 P241 - Use explosion-proof electrical/ventilating/lighting/ equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
 P271 - Use only in a well-ventilated area
 P280 - Wear protective gloves/protective clothing/eye protection/face protection

SECTION 3: Composition/information on ingredients

3.1. Substance

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
ethanol	(CAS No) 64-17-5	50 - 65	Flam. Liq. 2, H225 Eye Irrit. 2A, H319
Gum mastic	(CAS No) 61789-92-2	30 - 45	Not classified
methyl salicylate	(CAS No) 119-36-8	0.5 - 2	Acute Tox. 4 (Oral), H302 Aquatic Acute 3, H402
Gum storax	(CAS No) 8046-19-3	0.5 - 2	Skin Sens. 1, H317

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.
- First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause drowsiness or dizziness.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : May cause slight irritation.
- Symptoms/injuries after ingestion : Risk of aspiration pneumonia. May be fatal if swallowed and enters airways.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Alcohol resistant foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.
- Reactivity : No reactivity hazard other than the effects described in sub-sections below.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
- Other information : Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

6.1.1. For non-emergency personnel

- Protective equipment : Protective clothing. Protective goggles. Safety glasses. Gloves.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No naked lights. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust/fume/gas/mist/vapours/spray.

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Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical/ventilating/lighting/ equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from ignition sources. Keep in fireproof place. Keep container tightly closed. Recommended storage temperatures: 5°C – 30°C

Incompatible products : Strong bases. Strong acids. Oxidizing agent.

Incompatible products : Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. Wear chemically resistant protective gloves.

Respiratory protection : Wear appropriate mask. Wear respiratory protection.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Light green color liquid.

Colour : Light green.

Odour : Strong aromatic or balsamic odor.

Specific gravity : 0.85 – 0.90

Boiling point : 78°C (alcohol)

Flash point : >7.0 °C

Solubility : No data available

9.2. Other information

VOC content : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agent. Keep away from metals. Acetaldehyde, Phosgene, Ethylene oxide, Isocyanates, Cyanoacrylates

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)
ATE US (oral)	10740.000 mg/kg bodyweight

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LD50 oral rat	10740 mg/kg bodyweight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)
ATE US (oral)	10740.000 mg/kg bodyweight
mastic (61789-92-2)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
methyl salicylate (119-36-8)	
LD50 oral rat	887 mg/kg (Rat)
LD50 dermal rat	> 2500 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	887.000 mg/kg bodyweight

SECTION 12: Ecological information

12.1. Toxicity

ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
methyl salicylate (119-36-8)	
LC50 fish 1	> 42 mg/l (LC50; 96 h)
EC50 Daphnia 2	10 - 100 mg/l (EC50; 48 h)

12.2. Persistence and degradability

ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.70 g O ₂ /g substance
ThOD	2.10 g O ₂ /g substance
BOD (% of ThOD)	0.43
ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.70 g O ₂ /g substance
ThOD	2.10 g O ₂ /g substance
BOD (% of ThOD)	0.43
mastic (61789-92-2)	
Persistence and degradability	Biodegradability in water: no data available.
methyl salicylate (119-36-8)	
Persistence and degradability	Readily biodegradable in water. Photolysis in water. Biodegradable in the soil.
ThOD	1.37 g O ₂ /g substance
BOD (% of ThOD)	0.65 (5 days; Literature study)

12.3. Bioaccumulative potential

ethanol (64-17-5)	
BCF fish 1	1 (BCF; Other; 72 h; Cyprinus carpio; Static system; Fresh water; Read-across)
Log Pow	-0.31 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

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ethanol (64-17-5)	
BCF fish 1	1 (BCF; Other; 72 h; Cyprinus carpio; Static system; Fresh water; Read-across)
Log Pow	-0.31 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

mastic (61789-92-2)	
Bioaccumulative potential	No bioaccumulation data available.

methyl salicylate (119-36-8)	
BCF fish 1	46 (BCF)
Log Pow	1.59 - 2.98
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

ethanol (64-17-5)	
Surface tension	0.022 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66; 1; Read-across

ethanol (64-17-5)	
Surface tension	0.022 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66; 1; Read-across

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN 1170 ethanol (ethyl alcohol), 3, II
UN-No.(DOT) : UN 1170
DOT NA no. : UN1170
Proper Shipping Name (DOT) : [Ethanol](#) (Ethyl alcohol)
Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquids



Packing group (DOT) : II - Medium Danger

Additional information

Other information : No supplementary information available.

ADR

Transport document description : UN 1170 ethanol (ethyl alcohol), 3, II, (D/E)
Packing group (ADR) : II
Class (ADR) : 3 - Flammable liquid
Hazard identification number (Kemler No.) : 33
Classification code (ADR) : F1

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Danger labels (ADR) : 3 - Flammable liquids



Orange plates :

33
1170

Tunnel restriction code (ADR) : D/E

Transport by sea

UN-No. (IMDG) : 1170
Class (IMDG) : 3 - Flammable liquids
EmS-No. (1) : F-E
EmS-No. (2) : S-D

Air transport

UN-No.(IATA) : 1170
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

ethanol (64-17-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

ethanol (64-17-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

mastic (61789-92-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

methyl salicylate (119-36-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Exofin® Mastic Adhesive

WHMIS Classification

Class B Division 2 - Flammable Liquid

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225

Eye Irrit. 2A H319

Skin Sens. 1 H317

15.2.2. National regulations

No additional information available

15.3. US State regulations

Ethanol (64-17-5)

State or local regulations

U.S. - New Jersey - Right to Know Hazardous Substance List

ethanol (64-17-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Full text of H-phrases:

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed

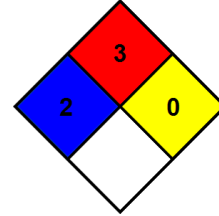
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H319	Causes serious eye irritation
H402	Harmful to aquatic life

- NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
- NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all ambient conditions.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 3 Serious Hazard
- Physical : 0 Minimal Hazard

SDS US (GHS HazCom 2012)

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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