



**Safety Data Sheet (SDS)**

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev

03. Printing date

Reviewed on

**Trade name: ArctiClean 1**

**Precautionary statements**

- Keep away from flames and hot surfaces. – No smoking.
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves / eye protection / face protection.
- Wear protective gloves.
- Wear eye protection / face protection.
- Wash thoroughly after handling.
- Contaminated work clothing must not be allowed out of the workplace.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a poison center/doctor if you feel unwell.
- Wash contaminated clothing before reuse.
- If skin irritation or rash occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- In case of fire: Use for extinction: CO2, powder or water spray.
- If on skin: Wash with plenty of water.
- Take off contaminated clothing and wash it before reuse.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Keep cool.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

**Unknown acute toxicity:**

5 percent of the mixture consists of ingredient(s) of unknown toxicity.

**Classification system:**

**NFPA ratings (scale 0 - 4)**



**HMIS-ratings (scale 0 - 4)**



**Hazard(s) not otherwise classified (HNOC):** None known

**3 Composition/information on ingredients**

- Chemical characterization: Mixtures**
- Description:** Mixture of substances listed below with nonhazardous additions.

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**· Dangerous Components:**

	Proprietary Solvent ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227	85%
	Proprietary Surfactant ⚠ Eye Dam. 1, H318; ⚠ STOT SE 3, H335	10%
CAS: 67784-80-9	Methyl ester, soybean oil ⚠ Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2-12%

**4 First-aid measures**

- **Description of first aid measures**
- **After inhalation:**  
Supply fresh air; consult doctor in case of complaints.  
In case of unconsciousness, place patient securely on side position for transportation.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
If skin irritation occurs, consult a doctor.
- **After eye contact:**  
Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
Combustible liquid. Vapors can travel to a source of ignition and flash back.  
Explosive mixtures may occur at temperatures at or above flashpoint.
- **Advice for firefighters**
- **Protective equipment:**  
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.

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Do not allow to enter sewers/ surface or ground water.

• **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

• **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**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

• **Information about protection against explosions and fires:** Protect from heat.

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

• **Storage:**

• **Requirements to be met by storerooms and receptacles:** No special requirements.

• **Information about storage in one common storage facility:** Not required.

• **Further information about storage conditions:**

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

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

**8 Exposure controls/personal protection**

• **Additional information about design of technical systems:** No further data; see section 7.

• **Control parameters**

• **Components with occupational exposure limits:**

**5989-27-5 d-limonene**

TWA Short-term value: 10 mg/m<sup>3</sup>

• **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

• **Exposure controls**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

• **Breathing equipment:** Not required.

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· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:**



Tightly sealed goggles

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Pale yellow
· <b>Odor:</b>	Citrus, reminding of orange peel
· <b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Not determined.
<b>Boiling point/Boiling range:</b>	173 °C (343 °F)

· **Flash point:** 91 °C (196 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 255 °C (491 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Not determined.

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<ul style="list-style-type: none"> <li>· <b>Explosion limits:</b></li> <li style="padding-left: 20px;"><b>Lower:</b> 0.7 Vol %</li> <li style="padding-left: 20px;"><b>Upper:</b> 6.1 Vol %</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Vapor pressure @ 20 °C (68 °F):</b> 2.3 hPa (2 mm Hg)</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Density @ 20 °C (68 °F):</b> 0.85 g/cm<sup>3</sup> (7.093 lbs/gal)</li> <li>· <b>Relative density</b> Not determined.</li> <li>· <b>Vapor density</b> Not determined.</li> <li>· <b>Evaporation rate</b> Not determined.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Solubility in / Miscibility with Water:</b> Not miscible or difficult to mix.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Partition coefficient (n-octanol/water):</b> Not determined.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Viscosity:</b></li> <li style="padding-left: 20px;"><b>Dynamic:</b> Not determined.</li> <li style="padding-left: 20px;"><b>Kinematic:</b> Not determined.</li> </ul>
<ul style="list-style-type: none"> <li>· <b>Solvent content:</b></li> <li style="padding-left: 20px;"><b>Organic solvents:</b> 85.0 %</li> <li style="padding-left: 20px;"><b>VOC content:</b> 85.0 %</li> <li style="padding-left: 40px;">722.5 g/l / 6.03 lb/gl</li> <li>· <b>Other information</b> No further relevant information available.</li> </ul>

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** No dangerous decomposition products known.

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**

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

**5989-27-5 d-limonene**

Oral	LD50	4400 mg/kg (rat) Remarks: Behavioral: Change in motor activity (specific assay). Respiratory disorder Skin and Appendages: Other: Hair
Dermal	LD50	>5000 mg/kg (rabbit)

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Inhalative	LC50/96 hours	0.72 mg/l (Pimephales) (OECD Test Guideline 203)
<b>127087-87-0 Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched</b>		
Oral	LD50	16000 mg/kg (rat)
Dermal	LD50	4490 mg/kg (rabbit) (24 hr occluded contact)

- **Primary irritant effect:**
- **on the skin:**  
Irritant to skin and mucous membranes.  
May cause an allergic skin reaction.
- **on the eye:**  
Irritating effect.  
Causes serious eye irritation.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**  
Group 1 - Carcinogenic to humans  
Group 2A - Probably carcinogenic to humans  
Group 2B - Possibly carcinogenic to humans  
Group 3 - Not classifiable as to its carcinogenicity to humans  
Group 4 - Probably not carcinogenic to humans

5989-27-5	d-limonene	3
• <b>NTP (National Toxicology Program)</b>		
None of the ingredients are listed.		
• <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
None of the ingredients are listed.		

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:**  
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

<b>5989-27-5 d-limonene</b>	
EC50	0.36 mg/l (daphnia) (OECD Test Guideline 202)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
Do not allow product to reach ground water, water course or sewage system.

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*Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms*

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further 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.*
- **Uncleaned packagings:**
- **Recommendation:** *Disposal must be made according to official regulations.*

**14 Transport information**

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	<p>UN2052</p>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	<p>Dipentene UN2052 Dipentene, ENVIRONMENTALLY HAZARDOUS DIPENTENE, MARINE POLLUTANT DIPENTENE</p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p>3 Flammable liquids 3</p>
<ul style="list-style-type: none"> <li>· <b>ADR, IATA</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>	<p>3 Flammable liquids</p>

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· <b>Label</b>	3
· <b>IMDG</b>	
	
· <b>Class</b>	3 Flammable liquids
· <b>Label</b>	3
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Warning: Flammable liquids
· <b>EMS Number:</b>	F-E,S-E
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: On cargo aircraft only:
· <b>Remarks:</b>	ERG Number: 127
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E1
· <b>UN "Model Regulation":</b>	UN2052, Dipentene, ENVIRONMENTALLY HAZARDOUS, 3, III

**15 Regulatory information**

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

None of the ingredients are listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

d-limonene

Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched

· **Hazard statements**

Combustible liquid.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

· **Precautionary statements**

Keep away from flames and hot surfaces. – No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area.

Wear protective gloves / eye protection / face protection.

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a poison center/doctor if you feel unwell.

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Wash contaminated clothing before reuse.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 In case of fire: Use for extinction: CO2, powder or water spray.  
 If on skin: Wash with plenty of water.  
 Take off contaminated clothing and wash it before reuse.  
 Store locked up.  
 Store in a well-ventilated place. Keep container tightly closed.  
 Keep cool.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

**• National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

**• State Right to Know**

CAS: 5989-27-5 RTECS: GW 6360000	d-limonene ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227	≥85%
CAS: 127087-87-0 RTECS: WZ4750000	Poly(oxy-1,2-ethanediyl), alpha-(4- 4 – 8% nonylphenyl)-omega-hydroxy-, branched ⚠ Eye Dam. 1, H318; ⚠ STOT SE 3, H335	5-10%
CAS: 67784-80-9	Methyl ester, soybean oil ⚠ Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2-12%

All ingredients are listed.

**• Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

**• Date of preparation / last revision 12/13/2021 / 2**

**• Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Flam. Liq. 4: Flammable liquids, Hazard Category 4
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

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*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*  
*Skin Sens. 1: Sensitization - Skin, Hazard Category 1*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 Aquatic*  
*Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1 Aquatic*  
*Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1*  
• **\* Data compared to the previous version altered.**