


1 Identification

- **Product identifier**
- **Trade name: MELT-O-CLEAN**
- **Recommended use and restriction on use**
- **Recommended use:**
Product component
Cleaner solvent
Degreaser
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
APPLIED Products, Inc.
6035 Baker Road
Minnetonka, MN 55345
800-365-2480
www.appliedadhesives.com
- **Emergency telephone number:**
Chemtrec
(800) 424-9300 (North America)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 3 H226 Flammable liquid and vapor.
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS02 GHS07 GHS08
- **Signal word:** Danger
- **Hazard statements:**
H226 Flammable liquid and vapor.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.

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P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist, vapors, or spray.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection.
P301+P310	If swallowed: Immediately call a poison center/doctor.
P331	Do NOT induce vomiting.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use foam, powder, or carbon dioxide for extinction.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 3
Instability = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2
Fire = 3
Reactivity = 0

· **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**
5989-27-5 d-Limonene
- **Additional information:** Product contains >94.0% d-Limonene.

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 stably in side position for transportation.
- **After skin contact:**
Immediately remove any clothing soiled by the product.

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Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

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

Allergic reactions

Irritant to skin and mucous membranes.

Dizziness

Breathing difficulty

Gastric or intestinal disorders

- **Danger:**

May be fatal if swallowed and enters airways.

Danger of impaired breathing.

Repeated exposure may cause skin dryness or cracking.

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

If swallowed, gastric irrigation with added, activated carbon.

If swallowed or in case of vomiting, danger of entering the lungs.

If necessary oxygen respiration treatment.

Later observation for pneumonia and pulmonary edema.

Contains d-limonene. May produce an allergic reaction.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

Fire-extinguishing powder

Carbon dioxide

Foam

Water fog / haze

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

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

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**

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Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

Protect from heat.

- **Environmental precautions**

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

Prevent from spreading (e.g. by damming-in or oil barriers).

Inform respective authorities in case of seepage into water course or sewage system.

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

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).

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:**

Open and handle receptacle with care.

Keep out of reach of children.

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

Keep away from heat and direct sunlight.

Rags, metal wools / cuttings / shavings and waste papers soaked with product must be placed in a sealed metal container rated for flammable waste.

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

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Flammable gas-air mixtures may be formed in empty containers/receptacles.

The product forms flammable fumes when heated.

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

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

Store in cool, dry conditions in well sealed receptacles.

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.

- **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:**

The product does not contain any relevant quantities of materials with critical values that have to be

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monitored at the workplace.

- **Exposure controls**

- **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.

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:** No relevant information available.

- **Breathing equipment:**

Not required under normal conditions of use.

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when aerosol or mist is formed.

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

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**

Nitrile rubber, NBR

Neoprene gloves

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**

No relevant information available.

- **Risk management measures** No relevant information available.

9 Physical and chemical properties

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

- **Appearance:**

Form: Liquid

Color: Clear to straw color.

- **Odor:** Citrus.

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Melting point/Melting range:** -96 °C (-140.8 °F)

- **Boiling point/Boiling range:** 176 °C (348.8 °F)

- **Flash point:** 51 °C (123.8 °F)

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· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	245 °C (473 °F)
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure at 20 °C (68 °F):	2.3 hPa (1.7 mm Hg)
· Density:	
Relative density:	0.84
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water at 25 °C (77 °F):	5.69 mg/l Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic at 25 °C (77 °F):	0.846 mPas
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- Reactivity:** No relevant information available.
- Chemical stability:**
- Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions**
Flammable.
Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
Toxic fumes may be released if heated above the decomposition point.
- Conditions to avoid** Excessive heat.
- Incompatible materials** Oxidizers
- Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

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- **Information on toxicological effects**

- **Acute toxicity:** Based on available data, the classification criteria are not met.

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

5989-27-5 d-limonene		
Oral	LD50	>2000 mg/kg (rat, female)

- **Primary irritant effect:**

- **On the skin:** Irritant to skin and mucous membranes.

- **On the eye:** Based on available data, the classification criteria are not met.

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

- **Carcinogenic categories**

- **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.

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

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

- **Aspiration hazard:** May be fatal if swallowed and enters airways.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity**

- Very toxic to aquatic life with long lasting effects.

5989-27-5 d-limonene		
LC50	<1 mg/l	(pimephales promelas)
EC50	0.307 mg/l	(daphnia)

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

- **Bioaccumulative potential:** No relevant information available.

- **Mobility in soil:** No relevant information available.

- **Additional ecological information**

- **General notes:**

- Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

- Avoid transfer into the environment.

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· **Other adverse effects** No relevant information available.

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13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

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.

· **Uncleaned packagings**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT** NA1993
 · **ADR/RID/ADN, IMDG, IATA** UN2319

· **UN proper shipping name**

· **DOT** Combustible liquid, n.o.s. (d-limonene)
 · **ADR/RID/ADN, IMDG** TERPENE HYDROCARBONS, N.O.S. (d-limonene)
 · **IATA** Terpene hydrocarbons, n.o.s. (d-limonene)

· **Transport hazard class(es)**

· **DOT**



· **Class** 3
 · **Label** 3

· **ADR/RID/ADN**



· **Class** 3 (F1)
 · **Label** 3

· **IMDG, IATA**



· **Class** 3
 · **Label** 3

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

· **Environmental hazards**
 · **Marine pollutant:**



Yes

· **Special precautions for user** Warning: Flammable liquids
 · **Danger code (Kemler):** 30
 · **EMS Number:** F-E,S-D

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

· **Transport/Additional information:**

· **DOT**

Classified as combustible under US DOT regulations. Labeling is only required for single packages ≥ 119 US gal / 450 L.

Labeling as a Marine Pollutant is only required for bulk single package shipments. Bulk packaging consists of a maximum capacity of greater than 450 L (119 gallons) for a liquid and a maximum net mass greater than 400 kg (882 pounds) for a solid. (See 171.4(c))

· **ADR/RID/ADN**



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants. (See 5.2.1.8.1)

· **IMDG**



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to provisions relevant to marine pollutants. (See 2.10.2.7)

· **IATA**



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each / 10L net.

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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 355 (extremely hazardous substances):**

Substance is not listed.

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

Substance is not listed.

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

Substance is listed.

- **Proposition 65 (California) based on current listing**

- **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.

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

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.

- **Date of preparation / last revision** February 06, 2019

- **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)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 OSHA: Occupational Safety & Health Administration

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TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Asp. Tox. 1: Aspiration hazard – Category 1

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., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:
Regulatory Department

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