

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Trade name: D-Limonene
Brand: DIYChemicals, Chemboys

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

Relevant identified uses: Industrial or Commercial Use only.
Uses advised against: All other uses.

1.3 Details of the supplier of the Safety Data Sheet

Chemboys LLC
212 Industrial Place,
Liberty, TX 77575,
USA

Phone: (855) 243-6722
E-mail: info@chemboys.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to OSHA Hazardous Communication Standard 29 CFR 1910.1200.

Flammable liquid, category 3
Aspiration toxicity, category 1
Skin irritation, category 2
Skin sensitization, category 1
Aquatic toxicity (chronic), category 1

2.2 Label elements

Labelling according to OSHA Hazardous Communication Standard 29 CFR 1910.1200:



Signal word: Danger

Hazard statements:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep/Store away from clothing/combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash hands thoroughly after handling.

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

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture meeting the criteria for classification in accordance with OSHA Hazardous Communication Standard 29 CFR 1910.1200.

Ingredients:

Name	CAS No.	GHS classification	% (w/v)
D-Limonene	68410-49-0	Flamm. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin. Sens. 1, H317 Aquatic Chronic 1, H410	>99

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Following inhalation: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact: Rinse skin with water/shower. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician. In case of skin irritation, consult a physician.

Following eye contact: Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion: Call a physician immediately. Observe aspiration hazard if vomiting occurs.

Protection of first aider: Not applicable.

4.2 Most important symptoms and effects

Symptoms: The known symptoms and effects are described in section 2.2 of this SDS.

Risks: Untreated symptoms may result in additional health risks.

4.3 Indication of any immediate medical and special treatment

The physician may contact the national poison centre for advice.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Dry chemical, CO₂, water spray or alcohol-resistant foam.

Unsuitable extinguishing media: No data available.

5.2 Specific hazards arising from mixture

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour/air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours may form explosive mixtures with air.

5.3 Advice for fire fighters

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

5.4 Other information

No other information available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 NOTES FOR NON-EMERGENCY PERSONNEL: Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

6.2 ENVIRONMENTAL PRECAUTIONS: Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

Notes for those trained to participate in an emergency:

6.3 ACCIDENTAL RELEASE MEASURES: Covering of drains. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Provision of sufficient ventilation. Avoid exposure. Take precautionary measures against static discharge. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions: Store in a well-ventilated place. Keep container tightly closed.

Incompatible materials: See section 10.

7.3 Specific end uses

See section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	66,7 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	9,5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs and other threshold levels				
End-point	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	14 µg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	1,4 µg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	1,8 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	3,85 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	0,385 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	0,763 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Engineering controls:

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective equipment:

- Hand: Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved.
- Body protection: Appropriate protective clothing should be worn to prevent skin contact.
- Eye: Use safety goggle with side protection.
- Respiratory: Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).
- Other measures: No statement available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Color:	Colorless
Odor:	Lemon like
Odor threshold:	No data available
pH:	No data available
Melting point/range:	-74 °C
Boiling point/range:	175 – 178 °C
Flash point:	51 °C at 1 atm
Evaporation rate:	No data available
Flammability:	flammable liquid in accordance with GHS criteria
Upper/lower flammability or explosive limits:	39 g/m ³ (LEL) - 345 g/m ³
Vapor pressure:	No data available
Vapor density:	No data available
Relative Density:	No data available
Solubility(ies):	0.006 g / l at 20 °C (water)
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	245 °C at 99.544 Pa
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

It's a reactive substance. Risk of ignition.

10.2 Chemical stability

Reactivity if exposed to light. Reactivity if exposed to air.

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Acids.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: TOXICOLOGICAL INFORMATION
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General information:

This product does not contain known human carcinogens.

11.1 Information on toxicological effects

Acute Toxicity:

No statements available for any of the ingredients.

Skin corrosion/irritation:

Causes skin irritation.

Serious eye damage/irritation:

No statements available for any of the ingredients.

Respiratory or skin sensitization:

May cause an allergic skin reaction.

Germ cell mutagenicity:

No statements available for any of the ingredients.

Carcinogenicity:

This product does not contain known human carcinogens.

Reproductive toxicity:

No statements available for any of the ingredients.

STOT – single exposure:

No statements available for any of the ingredients.

STOT – repeated exposure:

No statements available for any of the ingredients.

Aspiration hazard:

May be fatal if swallowed and enters airways.

Likely route(s) of exposure:

Skin exposure and eye exposure are the most likely to occur. Accidental ingestion is also possible.

SECTION 12: ECOLOGICAL INFORMATION

General information:

No statements available for any of the ingredients

12.1 Toxicity

No statements available for any of the ingredients.

12.2 Persistence and degradability

Physical- and photochemical elimination:

No statements available for any of the ingredients.

Biodegradation:

No statements available for any of the ingredients.

12.3 Bioaccumulative potential

No statements available for any of the ingredients.

12.4 Mobility in soil

Known/Predicted environmental distribution:

No statements available for any of the ingredients.

Surface tension:

No statements available for any of the ingredients.

Adsorption/Desorption:

No statements available for any of the ingredients.

12.5 Results of PBT and vPvB assessment

This product does not contain components which are considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No statements available for any of the ingredients.

SECTION 13: DISPOSAL CONSIDERATIONS
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13.1 Waste treatment methods

Product:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Waste material:

Dispose according to Federal, State, Provincial and Local regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID/IDMG/IATA: UN 2052

14.2 UN proper shipping name

ADR/RID/IDMG/IATA: DIPENTENE

14.3 Transport hazard class(es)

ADR/RID/IDMG/IATA: 3

14.4 Packing group

ADR/RID/IDMG/IATA: III

14.5 Environmental hazards

ADR/RID/IDMG/IATA: Yes

14.6 Special precautions for user

No statements available.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable, as product is not shipped in bulk.

SECTION 15: REGULATORY INFORMATION

International Inventories

TSCA: Complies

DSL: All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List.

US Federal Regulations

SARA 313: Toluene is subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

SARA 311/312 Hazard Categories

Acute health hazard: Yes

Chronic Health Hazard: Yes

Fire hazard: Yes

Sudden release of pressure hazard: No

Reactive Hazard: No

CWA (Clean Water Act)

C9-C11 isoalkanes and toluene are hazardous substances.

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canada

WHMIS Hazard Class

Not determined.

SECTION 16: OTHER INFORMATION

Further information

The information presented in this Safety Data Sheet (SDS) is accurate to the best of our knowledge at the date of publication. The information given within the SDS is meant solely as a guide for safe handling, use, transportation, processing, storage, release and disposal. In no means can the information within the SDS be considered as a warranty or specification for quality.