



T&R CHEMICALS INC.

MSOL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 30 March 2016 Revision date: 02 March 2018 Supersedes: 30 March 2016

Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Substance
Trade name : MSOL
CAS-No. : 68956-56-9
Synonyms : Terpene hydrocarbons, n.o.s. / Hydrocarbons, terpene processing by product / p-Methadienes and cineoles / Terpenes / Terpene hydrocarbons / Terpenes (all isomers) / Terpene hydrocarbon

1.2. Recommended use and restrictions on use

Recommended use : Industrial, Formulation & (re)packing of substances and mixtures

1.3. Supplier

T&R Chemicals. Inc.
Address 700 Celum Road
Clint, Texas 74836 USA

Phone:
(915)-202-6783 U.S. & Canada (Vasilios Fotopoulos)
003-4986-389-136 Outside U.S. & Canada (Gerardo Ribada)

Fax: (915) 8512961

Email:
office@trchemicals.com
vas@trchemicals.com
gribada@resinas.com

DISTRIBUTED BY: R.E. CARROLL, INC.
1570 NORTH OLDEN AVENUE EXT.
EWING, N.J. 08638-3204 USA
T: 609-695-6211/800-257-9365
F: 609-695-0102
orders@reccarroll.com

1.4. Emergency telephone number

Emergency number : Emergency telephone number: For emergency health, safety and environmental information:
800-424-9300
(915)-851-2761 In the United States and Canada
For emergency transportation information:
(915)-851-2761 In the United States and Canada

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flammable liquids Category 3	H226	Flammable liquid and vapor
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Skin sensitization, category 1B	H317	May cause an allergic skin reaction
Aspiration hazard Category 1	H304	May be fatal if swallowed and enters airways

Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation

Precautionary statements (GHS-US)	<p>H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation</p> <p>: P210 - Keep away from heat, open flames, hot surfaces, sparks. - No smoking. P233 - Keep container tightly closed. P240 - Ground/Bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P261 - Avoid breathing mist, spray, vapors. P264 - Wash hands thoroughly after handling. P272 - Contaminated work clothing must not be allowed out of the workplace P280 - Wear eye protection, protective clothing, protective gloves. P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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 P331 - Do NOT induce vomiting. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse. P370+P378 - In case of fire: Use carbon dioxide (CO2), foam, extinguishing powder, sand to extinguish. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation</p>
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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%	GHS-US classification
Hydrocarbons, terpene processing by-products (Main constituent)	(CAS-No.) 68956-56-9	100	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317 Asp. Tox. 1, H304

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures

Not applicable

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 (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse immediately with plenty of water for 15 minutes. Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause an allergic skin reaction.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

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4.3. Immediate medical attention and special treatment, if necessary

May result in aspiration into the lungs. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. Drain stomach by gastric lavage under qualified medical supervision.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapour. On combustion forms: Carbon oxides (CO, CO₂). Various hydrocarbon fragments. Acrid, irritating fumes.
Explosion hazard : May form flammable/explosive vapor-air mixture. Heavier than air, vapors may travel long distances along ground, ignite and flash back to source.
Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

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 : On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spills of this product present a serious slipping hazard. Eliminate all ignition sources if safe to do so. Use special care to avoid static electric charges. No open flames. No smoking. Stop leak if safe to do so.

6.1.1. For non-emergency personnel

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. Will float and can be reignited on water surface. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Recover large spills by pumping (use an explosion proof or hand pump). Use explosion-proof equipment. Collect spillage. Store away from other materials. Take precautionary measures against static discharge. Consult an expert on waste disposal or treatment. Ensure all national/local regulations are observed.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing mist, vapors, spray. Avoid contact with skin, eyes and clothing.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Provide adequate ventilation. Local exhaust and general ventilation must be adequate to meet exposure standards. Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof Equipment, ventilating equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Storage conditions	: Keep only in the original container in a cool well ventilated place. Keep container tightly closed.
Incompatible materials	: Strong acids, strong bases and oxidation agents. and materials that react with unsaturated hydrocarbons and alcohols.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation to minimize mist and/or vapor concentrations. Ensure adequate ventilation. Use explosion-proof equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Avoid discharge to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear protective gloves. It is recommended that the glove supplier be consulted to ensure the protective gloves are resistant to chemicals in this product

Eye protection:

Chemical goggles or face shield with safety glasses

Skin and body protection:

Long sleeved protective clothing. Rubber apron, boots

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Pale yellow
Odor	: characteristic Pine
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 170-180 °C (338-356 °F)
Flash point	: 129.9 °F Closed cup
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.851
Solubility	: Water: <0.03 %
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available

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Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content	: 126 g/l
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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

10.5. Incompatible materials

Strong acids, strong bases and oxidation agents. and materials that react with unsaturated hydrocarbons and alcohols.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature. May release flammable gases. Carbon monoxide. Carbon dioxide. acrid. fume. Hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity – single exposure	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity – repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: May be fatal if swallowed and enters airways.
Likely routes of exposure	: Inhalation. Ingestion. Skin and eye contact.
Symptoms/effects after inhalation	: May cause an allergic skin reaction.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: This material has not been tested for environmental effects.
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12.2. Persistence and degradability

No additional information available

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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

- Product/Packaging disposal recommendations : Dispose of contents/container to a hazardous or special waste collection point. Consult an expert on waste disposal or treatment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not re-use empty containers.
- Additional information : Handle empty containers with care because residual vapors are flammable. Do not re-use empty containers. Prevent contamination of soil, drains and surface waters.
- Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN2319, Terpene Hydrocarbons n.o.s., 3, III
- UN-No.(DOT) : UN2319
- Proper Shipping Name (DOT) : Terpene Hydrocarbons, n.o.s.
- Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Packing group (DOT) : III - Minor Danger
- Hazard labels (DOT) : 3 - Flammable liquid



- Marine pollutant : Yes (IMDG only)



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
- DOT Packaging Bulk (49 CFR 173.xxx) : 242
- DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T4- 2.65 178.274(d)(2) Normal..... 178.275(d)(3) unless TP29 applies.
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
- DOT Packaging Exceptions (49 CFR 173.xxx) : 150
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L

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DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	: 128
Other information	: No supplementary information available.

Transportation of Dangerous Goods

Transport document description	: UN2319 TERPENE HYDROCARBONS N.O.S., 3, III
UN-No. (TDG)	: UN2319
Proper Shipping Name (Transportation of Dangerous Goods)	: TERPENE HYDROCARBONS
TDG Primary Hazard Classes	: 3 - Class 3 - Flammable Liquids
Packing group	: III - Minor Danger
Explosive Limit and Limited Quantity Index	: 5 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 60 L

Transport by sea

Transport document description (IMDG)	: UN 2319 TERPENE HYDROCARBONS N.O.S., 3, III, MARINE POLLUTANT (>50°C c.c.)
UN-No. (IMDG)	: 2319
Proper Shipping Name (IMDG)	: TERPENE HYDROCARBONS N.O.S.
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: III - substances presenting low danger
Marine pollutant	: Yes (IMDG only)



Air transport

Transport document description (IATA)	: UN2319 Terpene Hydrocarbons n.o.s., 3, III
UN-No. (IATA)	: 2319
Proper Shipping Name (IATA)	: Terpene Hydrocarbons, n.o.s.
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

MSOL (68956-56-9)

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

15.2. International regulations

CANADA

MSOL (68956-56-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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SECTION 16: Other information

Revision date : 02 March 2018

Other information : None.

Full text of H-phrases:

H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

Indication of changes:

Section	Changed item	Change	Comments
	Standard phrases for safety precautions for the protection of humans or the environment	Modified	

SDS US (GHS HazCom 2012) Prop 65 Correction

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