SDS-MTOMINERALTU 11 Nov 2026

SAFETY DATA SHEET

MTO (MINERAL TURPENTINE OIL)

CAS No.: Petroleum hydrocarbon blend (typically CAS 8052-41-3 / 64742-88-7 range, varies by refining source)

This Safety Data Sheet is issued by Suraj Chemicals as the distributor/supplier of record, based on manufacturer and published GHS / regulatory reference data for this substance. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

GHS Product identifier

MTO (MINERAL TURPENTINE OIL)
Mineral Turpentine; White Spirit; Turpentine Substitute
CAS: Petroleum hydrocarbon blend (typically CAS 8052-41-3 / 64742-88-7 range, varies by refining source)

Other means of identification

Not relevant

Recommended use of the chemical and restrictions on use

Relevant uses: Industrial thinner/solvent for paints, varnishes, enamels; general-purpose cleaning and degreasing solvent. For industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3.

Supplier's details

SURAJ CHEMICALS
No 92, Govindappa Naicken Street, Shiva Complex, Chennai – 600001, Tamil Nadu, India
Tel: +91 - 7092722822, +91 - 9840284032 / +91 - 44 - 25393652, 42130281
Email: sales@surajchemicals.com | Website: www.surajchemicals.com
GST No: 33ACEPV8190L1ZZ

Emergency phone number

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Flam. Liq. 3	Flammable liquid, Category 3, H226
Asp. Tox. 1	Aspiration hazard, Category 1, H304
Skin Irrit. 2	Skin irritation, Category 2, H315
STOT SE 3	Specific target organ toxicity, single exposure, Category 3, H336
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic hazard, Category 2, H411

GHS label elements, including precautionary statements

GHS: Danger

Hazard statements

H226 – Flammable liquid and vapour.
H304 – May be fatal if swallowed and enters airways.
H315 – Causes skin irritation.
H336 – May cause drowsiness or dizziness.
H411 – 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.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P261: Avoid breathing vapours.
P264: Wash exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/eye protection.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN: Remove/take off immediately all contaminated clothing. Rinse skin with water.
P370+P378: In case of fire: Use dry chemical powder, CO2, foam or alcohol-resistant foam to extinguish.
P403+P235: Store in a well-ventilated place. Keep cool.
P501: Dispose of contents/container in accordance with hazardous-waste regulations.

Other hazards which do not result in classification

Petroleum distillate mixture – exact composition/distillation cut varies with refining batch/source; benzene content, when present, is normally controlled to trace/non-detectable levels in commercial mineral turpentine grades – certificate of analysis available on request.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Mineral Turpentine Oil (petroleum hydrocarbon blend – predominantly C9–C12 aliphatic/alicyclic hydrocarbons)

This product is a petroleum hydrocarbon mixture (UVCB substance); exact hydrocarbon distribution varies by refining batch. In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
Petroleum hydrocarbon blend (ref. CAS 8052-41-3 range)	Mineral Turpentine Oil / White Spirit — Flam. Liq. 3: H226; Asp. Tox. 1: H304; Skin Irrit. 2: H315; STOT SE 3: H336; Aquatic Chronic 2: H411 – Danger	100%

Exact hydrocarbon fingerprint/certificate of analysis available on request per production batch. To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

Mixtures

This product is itself a mixture (petroleum distillate/UVCB substance) – see 3.1 above for composition information available.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Request medical assistance immediately, showing the SDS of this product.

By inhalation

Remove the affected person to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if symptoms persist.

By skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water.

By eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.

By ingestion/aspiration

Do NOT induce vomiting – risk of aspiration into the lungs (H304). Rinse mouth. Obtain immediate medical attention.

Most important symptoms/effects, acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

Indication of immediate medical attention and special treatment needed, if necessary

Not relevant

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Suitable: Dry chemical powder, carbon dioxide (CO2), alcohol-resistant foam, water spray/fog.
Unsuitable: Do not use a solid/jet water stream as this may spread the fire.

Specific hazards arising from the chemical

Flammable liquid; vapours are heavier than air, may travel to a source of ignition and flash back. Combustion produces dense black smoke and toxic fumes.

Special protective actions for fire-fighters

Evacuate all non-essential personnel. Intervention only by capable personnel who are trained and aware of the hazards of the product. In all cases wear self-contained breathing apparatus and full protective clothing.

Additional provisions

If safe to do so, remove the exposed containers, or cool with large quantities of water spray from a safe/protected position. Approach from upwind. Contain fire-fighting water for later disposal; it must not enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Eliminate all sources of ignition. Ensure adequate ventilation. Personal protection equipment must be used against potential contact with the spilt product (see section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders

Wear protective equipment as per section 8. Keep unprotected persons away.

Environmental precautions

Avoid at all cost any type of spillage into an aqueous medium, drains or soil. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

Methods and materials for containment and cleaning up

Eliminate all ignition sources. Contain spillage with inert absorbent material (sand, earth). Collect into suitable closed containers for disposal. Prevent entry into drains/watercourses (may form a surface film).

Reference to other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

A. General precautions for safe use

Handle in well-ventilated areas away from heat, sparks and open flames. Avoid prolonged skin contact and inhalation of vapours.

B. Technical recommendations for the prevention of fires and explosions

Bond and ground containers during transfer to eliminate static discharge. Keep away from strong oxidising agents.

C. Technical recommendations on general occupational hygiene

Do not eat, drink or smoke during the process; wash hands and exposed skin afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks

Provide bunded/contained storage. Avoid atmospheric emissions and discharge to drains. Follow the protective measures given in the exposure controls/personal protection section.

Conditions for safe storage, including any incompatibilities

A. Specific storage requirements

Minimum Temp.	5°C
Maximum Temp.	35°C
Maximum time	24 Months (unopened, original container)

B. General conditions for storage

Store in a cool, well-ventilated flammable-liquids store away from heat, direct sunlight and sources of ignition, in accordance with the Petroleum Rules, 2002 (India) where applicable to the specific flash-point class.

Specific end use(s)

Except for the instructions already specified, it is not necessary to provide any special recommendation regarding the uses of this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Substances whose occupational exposure limits have to be assessed in the workplace, per the Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987):

Identification	Occupational Exposure Limit Type	Value
Mineral Turpentine / White Spirit	Time Weighted average concentration (8 hrs) – ACGIH TLV (as Stoddard solvent)	100 ppm (approx., indicative for petroleum distillate mixtures of this type)

Appropriate engineering controls

It is recommended to use localized extraction/general ventilation in the work area as a collective protection measure to avoid exceeding occupational exposure limits, in addition to individual protective equipment (PPE) as needed. Consult the manufacturer's information leaflet for storage, use, cleaning and maintenance of PPE.

B. Respiratory protection

Where ventilation is inadequate, use a respirator fitted with an organic vapour cartridge.

C. Specific protection for the hands

Chemical-resistant gloves (nitrile rubber).

D. Eye and face protection

Chemical safety goggles/panoramic glasses against splash/projections. Use if there is a risk of splashing.

E. Bodily protection

Flame-retardant/antistatic protective clothing. Safety footwear.

F. Additional emergency measures

Emergency shower (ANSI Z358-1, ISO 3864-1:2011, ISO 3864-4:2011) and eyewash stations (DIN 12 899, ISO 3864-1:2011, ISO 3864-4:2011) should be available.

Environmental exposure controls

Avoid environmental spillage of both the product and its container. See subsection 7.1.D.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Physical state at 20°C	Liquid
Appearance	Clear, colourless to pale yellow liquid
Color	Colourless to pale yellow
Odor	Kerosene-like, characteristic
Odour threshold	Not established
Volatility	
Boiling range at atmospheric pressure	150–200°C (typical)
Vapour pressure at 20°C	<0.5 kPa
Evaporation rate at 20°C	Slower than n-butyl acetate
Product Description	
Density / Relative density at 20°C	0.78–0.80 g/cm³
Dynamic viscosity at 20°C	~1.0–1.5 mPa·s
Concentration	Not applicable – UVCB mixture
pH	Not relevant (non-aqueous)
Vapour density (air = 1)	>4 (heavier than air)
Partition coefficient n-octanol/water (log Pow)	>3 (typical for this hydrocarbon range)
Solubility in water at 20°C	Practically insoluble
Decomposition temperature	Not established
Melting/pour point	<-10°C (typical)
Flammability	
Flash Point	38–60°C (batch dependent; typical closed-cup)
Flammability (solid, gas)	Non-applicable (liquid)
Autoignition temperature	~230–250°C (typical)
Lower / Upper flammability limit	~0.6% / 7% v/v (typical)
Particle Characteristics	
Median equivalent diameter	Non-applicable (liquid)

** Not relevant/not established due to the nature of the product or grade.*

Other information

Explosive properties	Not classified as explosive
Oxidising properties	Not classified as oxidising
Corrosive to metals	Not corrosive to metals
Heat of combustion	~44 kJ/g (typical for hydrocarbon distillates)
Surface tension at 20°C	Not established
Refraction index	Not established

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions of use. Reacts with strong oxidising agents.

Chemical stability

Chemically stable under the indicated conditions of storage, handling and use.

Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

Conditions to avoid

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Vapour/air mixtures may be explosive above flash point	Avoid heat and open flame	Avoid prolonged exposure	No particular hazard

Incompatible materials

Strong oxidising agents.

Hazardous decomposition products

Combustion produces carbon monoxide, carbon dioxide and dense smoke/particulates.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

In case of exposure that is repetitive, prolonged, or at concentrations higher than the recommended occupational exposure limits, adverse health effects may result depending on the means of exposure:

A. Ingestion (acute effect)

May be fatal if swallowed due to aspiration into the lungs (H304) – low-viscosity hydrocarbon liquid. Do not induce vomiting.

B. Inhalation (acute effect)

High vapour concentrations may cause CNS depression (headache, dizziness, drowsiness, H336) and respiratory tract irritation.

C. Contact with skin and eyes (acute effect)

Causes skin irritation (H315); defatting with repeated/prolonged contact.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)

Not classified as carcinogenic, mutagenic or toxic to reproduction, provided benzene content is controlled to trace/non-detectable levels typical of commercial mineral turpentine grades – refer to batch certificate of analysis.

E. Sensitizing effects

Classification criteria for respiratory or skin sensitisation are not met based on available data.

F. Specific target organ toxicity (STOT) – single exposure

May cause drowsiness or dizziness (H336).

G. Specific target organ toxicity (STOT) – repeated exposure

Classification criteria are not met based on available data for this grade.

H. Aspiration hazard

H304 – May be fatal if swallowed and enters airways.

Product-specific toxicological information

Identification	Acute Toxicity	Genus
Mineral Turpentine Oil (petroleum distillate blend)	LD50 oral: >5000 mg/kg (approx., typical for this hydrocarbon class)	Rat
	LD50 dermal: >3000 mg/kg (approx.)	Rabbit

12. ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.

Toxicity

Identification	Acute Toxicity	Species	Genus
Mineral Turpentine Oil (petroleum distillate blend)	LC50: 1–10 mg/L (96h, approx., typical range)	Non-applicable	Fish
	EC50: 1–10 mg/L (48h, approx.)	Non-applicable	Crustacean

Persistence and degradability

Inherently biodegradable; individual hydrocarbon components vary in rate.

Bioaccumulative potential

Potential for bioaccumulation in aquatic organisms (log Pow >3, typical of this hydrocarbon range).

Mobility in soil

Koc	Henry	Dry Soil	Moist Soil
High (low soil mobility)	Moderate-high	Low mobility	Low mobility

Results of PBT and vPvB assessment

Not classified as PBT or vPvB based on available data.

Other adverse effects

Not described

13. DISPOSAL CONSIDERATIONS

Disposal methods

Do not discharge to drains or watercourses. Recover/recycle where possible. Dispose of via a licensed hazardous-waste/solvent-recovery contractor in accordance with local regulations.

Refer to national and local regulations on hazardous waste management (Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended).

14. TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023, India: Motor Vehicles Act / CMVR)

14.1 UN number	UN1300
14.2 UN proper shipping name	TURPENTINE SUBSTITUTE
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22)

14.1 UN number	UN1300
14.2 UN proper shipping name	TURPENTINE SUBSTITUTE
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Marine pollutant	Yes
14.6 Special precautions for user	EmS Codes: F-E, S-D | Segregation group: Not relevant
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by air (IATA/ICAO 2024)

14.1 UN number	UN1300
14.2 UN proper shipping name	TURPENTINE SUBSTITUTE
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation

Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
The Petroleum Act, 1934 and Petroleum Rules, 2002 (where applicable to flammable liquids)
The Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996
Public Liability Insurance Act, 1991

16. OTHER INFORMATION

Legislation related to safety data sheets

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Texts of the legislative phrases mentioned in sections 2 and 3

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Advice related to training

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources

The United Nations Economic Commission for Europe (UNECE); ECHA classification and labelling inventory; publicly available substance-specific safety data references.

Abbreviations and acronyms

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | COD: Chemical Oxygen Demand | BOD5: 5-day biochemical oxygen demand | BCF: Bioconcentration factor | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | Log-POW: Octanol-water partition coefficient | Koc: Partition coefficient of organic carbon | IARC: International Agency for Research on Cancer | TWA: Time-weighted average | STEL: Short-term exposure limit

Disclaimer: The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

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