SAFETY DATA SHEET



1. PRODUCT

1.1 Product identifiers

Name: Turpentine oil CAS-No.: 8006-64-2

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

Identified uses: Laboratory chemicals, Synthesis of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Skin sensitisation (Category 1), H317

Aspiration hazard (Category 1), H304

Acute aquatic toxicity (Category 2), H401

Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram		
Signal word	Danger	
Hazard statement(s)	H226 Flammable liquid and vapour. H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled 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. H411 Toxic to aquatic life with long lasting effects.	O 大場香料



Precautionary P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P233 Keep container tightly closed. statement(s) 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 dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves/ eye protection/ face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
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 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. P391 Collect spillage. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

CAS-No.: 8006-64-2 EC-No.: 232-350-7

Hazardous components

Component	Classification	Concentration
Turpentine oil	4 漆色	
	Flam. Liq. 3; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; Skin Sens. 1; Asp. Tox. 1; Aquatic Acute 2; Aquatic Chronic 2; H226, H302 + H312 + H332, H304, H315, H317, H319, H411	

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

The state of the s	
General advice	10,0
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of	dangerous area.
If inhaled	
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Const	ult a physician.
In case of skin contact	
Wash off with soap and plenty of water. Consult a physician.	
In case of eye contact	
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.	
If swallowed	
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse physician.	e mouth with water. Consult a

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.2 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis	
Turpentine oil	8006-64-2	TWA	20.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)	
18.0	Remarks	Central Nervous Skin irritation N	Central Nervous System impairment Upper Respiratory Tract irritation Lung damage Skin irritation Not classifiable as a human carcinogen Sensitizer		
		TWA	100.000000 ppm 560.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) -Table Z-1 Limits for Air Contaminants	
		The value in mo	g/m3 is approxim	ate.	
		TWA	100.000000 ppm 560.000000 mg/m3	USA. NIOSH Recommended Exposure Limits	
	:0	TWA	20.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)	
3		Skin irritation Ad proposed in the	ervous System impairment Upper Respiratory Tract irritation Lung damage tion Adopted values or notations enclosed are those for which changes are in the NIC See Notice of Intended Changes (NIC) Not classifiable as a arcinogen Sensitizer varies		
to be li	是智	TWA	20 ppm	USA. ACGIH Threshold Limit Values (TLV)	
F.F.	200,	Dermal Sensitization Lung irritation 2015 Adoption Not classifiable as a human carcinogen varies			
		PEL	100 ppm 560 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)	

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmen tal exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid Colour: colourless
Odour	pungent
Odour Threshold	No data available
рН	No data available

Melting point/freezing point	Melting point/range: -55 °C (-67 °F)
Initial boiling point and boiling range	155 °C (311 °F) at 1,013 hPa (760 mmHg)
Flash point	36 °C (97 °F) - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 6 %(V) Lower explosion limit: 0.8 %(V)
Vapour pressure	5 hPa (4 mmHg) at 20 °C (68 °F)
Vapour density	No data available
Relative density	0.864 g/cm3 at 20 °C (68 °F)
Water solubility	0.351 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	270 °C (518 °F)
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information

Surface tension: 54.8 mN/m at 21 °C (70 °F)

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 5,760 mg/kg Inhalation: No data available Dermal: No data available No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin.

(Draize Test)

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

in vitro assay S typhimuriúm Result: negative

Carcinogenicity

Carcinogenicity - Mouse - Skin
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available No data available

Specific target organ toxicity -single exposure

No data available

Specific target organ toxicity -repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Additional Information

RTECS: YO8400000

Exposure to high airborne concentrations can cause anesthetic effects., Nausea, Dizziness, Headache To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - 29 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 6.4 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test EC50 - Desmodesmus subspicatus (green algae) - 17.1 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	No data available

12.2 Persistence and degradability

	aerobic - Exposure time 28 d
	Result: 71.7 % - Readily biodegradable
6. 19	(OECD Test Guideline 301F)
	Remarks: The 10 day time window criterion is not fulfilled.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1299 Class: 3 Packing group: III

Proper shipping name: Turpentine

Reportable Quantity (RQ):

Marine pollutant:yes

Poison Inhalation Hazard: No

IMDG

UN number: 1299 Class: 3 Packing group: III EMS-No: F-E, S-E

Proper shipping name: TURPENTINE

Marine pollutant: yes Marine pollutant: yes

IATA

UN number: 1299 Class: 3 Packing group: III

Proper shipping name: Turpentine

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De

Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

Component	CAS-No.	Revision Date
Turpentine oil	8006-64-2	1993-04-24

Pennsylvania Right To Know Components

Component	CAS-No.	Revision Date
Turpentine oil	8006-64-2	1993-04-24

New Jersey Right To Know Components

Component	C	CAS-No.	Revision Date
Turpentine oil	80	006-64-2	1993-04-24

California Prop. 65 Components

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

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3,

Acute Tox. Acute toxicity

Aquatic Acute Acute aquatic toxicity

Aquatic Chronic Chronic aquatic toxicity

Asp. Tox. Aspiration hazard

Eye Irrit. Eye irritation

Flam. Liq. Flammable liquids

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H302 + H312 +H332 Harmful if swallowed, in contact with skin or if inhaled

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

HMIS Rating

Health hazard: 2

Chronic Health Hazard:

Flammability: 3

Physical Hazard 0

NFPA Rating

Health hazard: 2

Fire Hazard: 3

Reactivity Hazard: 0

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.

