PINE CHEMICAL GROUP

Material Safety Data Sheet - Crude Sulfate Turpentine

1. Product Identification

CRUDE SULFATE TURPENTINE

2. Supplier

PineChemical Group Oy, 10 Tehtaankatu, 00120, Helsinki, Finland

3. Hazard Identification

Hazardous components identification

Component name	CAS #	Content, %	Exposure Limits, ppm
Turpentine and Terpene Hydrocarbon Isomers	8006-64-2	85-99	20
Methyl mercaptan	74-93-1	0.2-5	0.5
Dimethyl sulfide	75-18-3	1-12	10
Dimethyl disulfide	624-92-0	0-1.3	0.5

Appearance and Odor: Clear to dark brown liquid with a foul odor.

Primary Health Hazards: The primary health hazards are due to skin exposure to the liquid and/or inhalation of the vapor or mist.

4. Emergency and First-Aid Procedures

Ingestion: Not applicable under normal use. If swallowed, can produce nausea, serious illness, and even death (average lethal dose for an adult is 4-6 ounces). **DO NOT INDUCE VOMITING.** Give edible oil or mineral oil to drink. Get immediate medical help.

Eye Contact: Liquid turpentine may cause irritation, conjunctivitis, or corneal burns. Vapors are irritating at 175 ppm. Speed is essential. Immediately flush with running water for at least 15 minutes, including under eyelid. Get immediate medical help.

Skin Contact: May cause irritation, dermatitis, or chemical burns. Remove contaminated clothing, footwear, and accessories such as a watch. Wash clothing before reuse and discard footwear which cannot be decontaminated. Immediately wash with warm running water and soap. Get medical help.

Skin Absorption: Liquid can penetrate skin to produce systemic effects. Wash thoroughly with soap and water and rinse.

Inhalation: May cause headache, dizziness, chest pain, bronchitis, pulmonary edema, cyanosis, narcosis, and rapid heart rate. Remove from exposure. Get medical help if symptoms persist or for excessive exposure.

5. Fire and Explosion Data

Flash Point: 23° to 35°C.**CAUTION:** The flash point of crude sulfate turpentine may be dependent on the concentration and type of sulfur compounds present.

Flammable Limits: LFL = 0.8% by volume **UFL =** no known data available

Extinguishing Media: Foam, carbon dioxide, or dry chemical. If water must be used, use as a mist or fog only.

Autoignition Temperature: 253°C

Special Firefighting Procedures: Water may be ineffective in quenching fire, but can be used to cool fire-exposed containers and surroundings. Toxic gases may be released during fire. Use SCBA and full protective clothing.

Unusual Fire and Explosion Hazards: May be ignited by heat, sparks, flame or static electricity. Forms explosive vapor/air mixtures.

6. Accidental release measures

Steps to be Taken In Case Material Is Released or Spilled: Immediately notify safety and environmental personnel. Provide adequate explosion-proof ventilation to remove vapors from spill area. Personnel involved in cleanup should use protection against breathing vapors or contact with liquid. Spills should be contained, picked up with absorbent material, and placed in a closed metal container for prompt disposal.

Other Precautions: Avoid inhalation of vapors or mist. Avoid contact with skin and eyes. Do not smoke in areas of storage or use.

7. Rules of the reference and storage

Precautions to be Taken In Handling and Storage: Store in a well-ventilated, cool place away from sources of heat and ignition. Store away from oxidizing agents. Protect containers against physical damage.

8. Exposure controls/personal protection

Respiratory protection: Suitable respiratory equipment with an organic vapor chemical cartridge is recommended

Hand protection: Protective gloves as nitrile are recommended

Eye protection: Safety goggles or full-face mask are recommended

Skin and body protection: Apron, boots, face shield, or rubber suit, chemical-cartridge respirator or air-supplied or self-contained respirator recommended for non-routine or emergency exposures above the allowable exposure limits

Work: Eyewash stations and safety showers should be readily accessible. Provide local exhaust as needed so that exposure limits are met. Provide general ventilation in processing and storage areas so that exposure limits are met.

Self-contained breathing apparatus (SCBA) recommended when fighting fire.

9. Physical/Chemical Properties

Physical Description: Clear to dark brown liquid with a foul odor.

Boiling Point (760 mm Hg): 119° – 173°C

Freezing Point: -50° to -60°C

Melting Point: -50° to -60°C

Molecular Formula: Mixture

Molecular Weight: Mixture

Solubility in Water (% by weight): 0.023% at 25°C

Specific Gravity (H_2O = 1): 0.87 at 15°C

Vapor Density (air = 1; 1 atm): 4.8

Vapor Pressure (mm Hg): 5 at 25°C

% Volatile by Volume [21°C]: 98

10. Stability

Chemical stability: Product is chemically stable

Conditions to Avoid: This material is reasonably stable when stored in a well-ventilated, cool place in a suitable container sealed to exclude air. It can undergo auto-oxidation in air, liberating heat which can build up in a confined space.

Incompatibility (Materials to Avoid): Oxidizing agents, oxidation catalysts, and sources of ignition and heat.

Hazardous Decomposition or By-Products: Methyl mercaptan, Dimethyl sulfide

Hazardous Polymerization: Will not occur

Sensitivity to Static Discharge: Crude sulfate turpentine is a flammable liquid which may be ignited or explode as the result of a static electricity discharge.

11. Toxicity

Toxicity Data: Individual component information listed below.

Components:

Turpentine: TCLo (inhalation, human) = 175 ppm. LD50 (ingestion, rat) = 5,760 mg/kg. LC50 (inhalation, rat) = 12 gm/m3/6H. LC50 (inhalation, mouse) = 29 gm/m3/2H.

Dimethyl disulfide: LC50 (rat, inhalation) = 805 ppm/4 hours. LC50 (rat, inhalation) = 15.85 mg/m3/2 hours. LC50 (mouse, inhalation) = 12.3 mg/m3/2 hours. Subchronic (rat, inhalation): 100 ppm/6 hours/day/5 days/week/4 weeks resulted in no toxicity.

Dimethyl sulfide: LD50 (ingestion, rat) = 3300 mg/kg. LD50 (ingestion, mouse) = 3700 mg/kg. LC50 (inhalation, rat) = 40,250 ppm/4H.

Methyl mercaptan: LC50 (rat, inhalation) = 675ppm/4 hr; LC50 (mouse, inhalation) = 6530 ug/m3/2 hr

Target Organs: Respiratory system, eyes, skin and central nervous system.

12. Environmental protection

It is necessary to avoid contact of substance with drinking sources.

The product possesses toxic action on fishes and water micro flora of natural reservoirs.

13. Disposal considerations

Methods of disposal: Incineration is recommended for waste disposal, using an approved incineration process for appreciable amounts in accordance with federal, state, and local regulations.

Do not incinerate sealed containers.

14. Transport information

Classification:

UN number	1993
Packing group	III
ADR/RID	UN 1993, Flammable liquid, n.o.s. (Crude sulfate turpentine, contains alpha-Pinene) 3, III
IMDG-Текст	Flammable liquid, n.o.s. (Crude sulfate turpentine, contains alpha-Pinene) Class 3, UN 1993, PG III

15. Regulatory information

EU classification	F+, Extremely Flammable R12
Content	Crude sulfate turpentine, contains alpha-Pinene
Symbol	

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Risk-phrases:	12	Extremely flammable
	28	Very toxic if swallowed
	36	Irritating to eyes
	37	Irritating to respiratory system
	38	Irritating to skin
	43	May cause sensitization by skin contact

Safety-phrases:	15	Keep away from heat
	16	Keep away from sources of ignition
	23	Do not breathe vapour
	24	Avoid contact with skin
	25	Avoid contact with eyes
	36	Wear suitable protective clothing
	37	Wear suitable gloves
	38	In case of insufficient ventilation, wear suitable respiratory equipment.
	39	Wear eye / face protection
	51	Use only in well ventilated areas

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16. Additive information

Product should be transported in polyethylene, polypropylene, aluminum or stainless steel containers

Product has manufactured according TU 13-0281078-55-89

Guaranty shelf life – 6 months from date of production

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