MATERIAL SAFETY DATA SHEET PINE OIL

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name:	Pine oil
Synonyms:	oils, pine

2. COMPOSITION INFORMATION ON INGREDIENTS

Composition:

Name	CAS #	Concentration
Pine oil	94266-48-5 / 8002-09-3	Not specified

EINECS Number:	304-455-9
RTECS NO.:	TK5100000

3. HAZARDS IDENTIFICATIONS

Flammable, irritating to eyes, skin, digestive tract and respiratory system.

Potential Health Effects

Eye:	Causes eye irritation.
Skin:	Causes slightly skin irritation.
Ingestion:	Causes digestive tract irritation.
Inhalation:	Causes respiratory tract irritation.

4. FIRST AID MEASURES

Eyes: Flush eyes with a large quantity of water for at least 15minute, occasionally lifting the upper and lower eyelids, consult surgeon if irritation develops.

Skin: Remove contaminated clothing and shoes, wash affected area with plenty of soap and water for at least 15 minutes, consult surgeon if irritation develops.

Ingestion: Drink plenty of water, do not induce vomiting, get medical aid immediately.

Inhalation: Remove victim from exposure to fresh air immediately, if not breathing, give artificial respiration; if breathing is difficult, give medical oxygen, Get medical aid

5. FIRE- FIGHTING MEASURES

Special Fire-Fighting Procedures: As material emits toxic fumes under fire conditions, wearing a self-contained breathing apparatus in pressure-demand and protecting clothing to prevent contacts from eyes and skin is strongly recommended.

Extinguishing Media: Carbon dioxide, dry chemical powder or appropriate foam. Do not use water, water is unsuitable for use on burning material, but may be used to cool containers exposed to heat.

6. ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective apparatus as indicated in Section8.

Spills/Leaks: Cover with an inert material (e.g., vermiculite, sand, earth, or dirt), then place in suitable and tightly closed containers sing non-sparking tools, transport outdoors.

Avoid open flames or sources of ignition (e.g., pilot lights on gas hot water heater). Dispose of in accordance with current laws and regulations.

7. HANDLING & STORAGE

Handling: Measures indicated in Section 8 should be taken to prevent contact from skin and eyes. Vapours may form explosive mixtures with air, provide suitable air extraction ventilation in the work areas. Avoid contact with heat, sparks and flame, smoking should not be permitted in work areas.

Storage: Keep away from heat, sparks, and flames. Store in a tightly closed and suitable container, containers should be stored in a cool and dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Use adequate ventilation to keep the vapor concentration in work areas out from explosion limit.

Protective Equipment:

Eyes: Wear chemical safety goggles if splashing is possible, wash contaminated goggles before reuse.

Skin: Wear Compatible chemical-resistant gloves and appropriate protective clothing, wash contaminated gloves and clothing before reuse.

Inhalation: Do not breath vapours. In confined or poorly ventilated areas, the use of an appropriate respiratory protection may be required.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Colourless clear liquid.
Odour:	Pine
Specific Gravity@20 °C:	0.875-0.940
Flash point:	55-84 °C
Boiling point:	155-225 °C@760mmHg
Solubility In:	Paraffin oil, alcohol, kerosene.
Solubility In water:	Insoluble

10. STABILITY & REACTIVITY

Chemical Stability:	stable under ordinary conditions of use and storage.
Conditions to Avoid:	Heat, sparks, open flames, and other sources of ignition.
Incompatible Materials:	Strong acids, strong oxidizing agents.
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, irritation and toxic fumes and gases.
Hazardous Polymerization:	Not available.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Date:	LD 50 ORL-RAT 3200-3600mg/kg

LD 50 SKN-RBT>5000mg/kg

Carcinogenicity:	Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

12. ECOLOGICAL INFORMATION

General Information:	Prevent contamination of soil, ground, and surface waters. Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all national and local environmental regulations.

14. TRANSPORT INFORMATION

Land Transport (RID/ADR)

Shipping Name:	Pine oil
Hazard Class:	3
UN Number:	1272
Packing Group:	III.

Marine Transport (IMDG)

Shipping Name:	Pine oil
Hazard Class:	3
UN Number:	1272
Packing Group:	III.

Air Transport (IATA)

Shipping Name:	Pine oil
Hazard Class:	3
UN Number:	1272
Packing Group:	III.

15. REGULATORY INFORMATION

European information:

Hazard Symbols:

Xi-Irritant

Risk Phrases: R 10-Flammable

R36/37/38-Irritation to eyes, respiratory system, and skin.

Safety Phrases:26-36/37-60-61 26-36/37-60-61 S 16-Keep away from sources of ignition-No smoking

S 36-Wear suitable protective clothing.

S 37-Wear suitable protective gloves.

S 60-This material and its container must be disposed of as hazardous waste.

Hazardous materials identification system: Fire:2 Health:1 Reactivity:1 Personal Protection: B

(Degree of Hazard:4=Extreme 3=High 2=Moderate 1=Slight 0=Insignificant)

16. ADDITIONAL INFORMATION

The information contained in this MSDS is believed to be accurate and represent the best information currently available to us. We have tried to make the information as accurate as possible. However, it must be pointed out that we make no warranty of merchantability or any other warranty, expressed or implied. NuVest Chemicals disclaims any liability for any injury or loss arising from the use of this information or the materials described. Users should make their own investigations to determine the suitability of the information for their applications. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any social, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.