1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier


Other means of identification

Product Code(s): None

Synonyms: Product Identifier SDS081

Recommended use of the chemical and restrictions on use

Recommended Use: Process fluid for honing machines

Uses advised against: No information available

Supplier's details

Supplier Address: Sunnen Products
7910 Manchester
Saint Louis, MO 63143
314-781-2100
Website: www.sunnen.com

Emergency telephone number

Emergency Telephone: 1 (314) 781-2100 8 a.m. - 3 p.m. C.S.T (US)

Number: Email: SDS@sunnen.com

2. HAZARDS IDENTIFICATION

Classification

This product is considered hazardous by the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Aspiration Toxicity: Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word: Danger

Hazard Statements: May be fatal if swallowed and enters airways
Precautionary Statements

Prevention
• None

General Advice
• None

Ingestion
• IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
• Do NOT induce vomiting.

Storage
• Store locked up.

Disposal
• Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)
Not applicable

Other information
Prolonged skin contact may defat the skin and produce dermatitis. Prolonged or repeated skin contact can cause skin irritation or oil acne: Inflammation and blackheads due to mechanical blockage of the pores.
10% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light naphthenic</td>
<td>64742-53-6</td>
<td>20-95</td>
<td>*</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic</td>
<td>64742-52-5</td>
<td>0-75</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation persists.

Skin Contact
Wash skin with soap and water. Get medical attention if irritation persists. Remove and wash contaminated clothing before re-use.

Inhalation
Move to fresh air in case of accidental inhalation of vapors. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

Ingestion
Call a physician or Poison Control Center immediately. Do NOT induce vomiting.
Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects  Acne, blackheads.

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

Notes to Physician  Aspiration hazard.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media  water spray

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. Although not classified as “combustible” (based on flash point and ignition properties) this product can be made to burn and will serve as a fuel source for a fire. Sealed containers may melt, leak, burst or explode, releasing contents and spreading fire, if exposed to extreme heat. Towels, rags or other insulating absorbent fibrous media contaminated with honing oil should be stored in appropriate fireproof container that is emptied daily to avoid spontaneous combustion hazard. Remove traces of product if soldering, welding, brazing, cutting or other process involving ignition sources to prevent a fire hazard.

Explosion Data
Sensitivity to Mechanical Impact  None.
Sensitivity to Static Discharge  None.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions  Wear appropriate protective clothing. Wash thoroughly after handling.

Environmental Precautions

Environmental Precautions  See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment  Dike far ahead of liquid spill for later disposal.

Methods for Cleaning Up  Dam up. Soak up with inert absorbent material. Clean up promptly by sweeping or vacuum. Towels, rags or other insulating absorbent fibrous media contaminated with honing oil should be stored in appropriate fireproof container that is emptied daily to avoid spontaneous combustion hazard.

7. HANDLING AND STORAGE

Precautions for safe handling
Handling

Use only in ventilated areas. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash thoroughly after handling. Avoid wearing clothing soaked with fluid. Remove and wash contaminated clothing before re-use.

Use according to package label instructions. Use only in Honing Machines. Mix only with other Sunnen Honing oils. Clean oil covered parts with alkaline cleaner. Contact with water or alkaline material can lead to formation of non-hazardous soaps which can clog the honing machines oil filter. If spilled, take caution, as material can cause surfaces to become very slippery.

Conditions for safe storage, including any incompatibilities

Storage

Keep container tightly closed.

Incompatible Products

Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Using proper engineering controls (local ventilation) normal honing operations should not generate mists at the operator's breathing zone. This product is considered a metalworking fluid (MWFs). Currently two OSHA air contaminant permissible exposure limits apply to MWFs. They are 5 mg/m$^3$ for an 8 hr. time weighted average (TWA) for mineral oil mist and 15 mg/m$^3$ (8hr. TWA) for Particulates Not Otherwise Classified (PNOC) [applicable to all other metalworking fluids].

The American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV) for mineral oil is 5 mg/m$^3$ for an 8 hr. TWA and 10 mg/m$^3$ for a 15 minute short term exposure limit (STEL).

In 1998, The National Institute for Occupational Safety and Health (NIOSH) published a criteria document which recommended an exposure level (REL) for MWF aerosols of 0.4 mg/m$^3$ for thoracic particulate mass as a TWA concentration for 10 hours per day during a 40 hr. work week. Because of the limited availability of thoracic samplers, measurement of total particulate mass is an acceptable substitute. The thoracic particulate value corresponds to 0.5 mg/m$^3$ for total particulate mass.

In 1999, the OSHA Metalworking Fluids Standards Advisory Committee recommended a new 8 hr. TWA PEL of 0.4 mg/m$^3$ thoracic particulate (0.5 mg/m$^3$ total particulate).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light</td>
<td>5 mg/m$^3$ (as oil mist)</td>
<td>5 mg/m$^3$ (as oil mist)</td>
<td>-</td>
</tr>
<tr>
<td>naphthenic 64742-53-6</td>
<td>2 mg/m$^3$ (inhalable)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Local ventilation is required. Do not operate honing machine in an unventilated area. Use local ventilation if strong odors or oil mist is detected.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles. Skin protection is not normally required for short exposures when honing with oil. Oil impervious gloves should be worn. Nitrile gloves are recommended.

Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred. Note some barrier creams have been shown to increase skin absorption of metallic compounds.
In case of mist, spray or aerosol exposure wear suitable personal respiratory protection.

Handle in accordance with good industrial hygiene and safety practice. Provide regular cleaning of equipment, work area and clothing. Wash hands thoroughly to remove honing oil and microscopic particles of metal debris. Wash hands before eating, drinking or smoking. Remove and wash contaminated clothing before re-use. Avoid contact with open cuts or sores.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks/ - Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Mineral Oil</td>
<td></td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>Brown</td>
<td></td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

Viscosity: 4-14 cSt @ 40°C

### 10. STABILITY AND REACTIVITY

**Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.
Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Avoid accumulation of contaminated towels, rags or other insulating absorbent fibrous media.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon oxides. Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

No acute toxicity information is available for this product.

Inhalation

None under normal use conditions

Eye Contact

Oil mists containing small metal filings may cause mechanical irritation.

Skin Contact

Non-irritating during normal use. Prolonged or repeated skin contact can cause skin irritation or oil acne: Inflammation and blackheads due to mechanical blockage of the pores.

Ingestion

May be fatal if swallowed and enters airways.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>light naphthenic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorine additive</td>
<td>= 26100 mg/kg (Rat)</td>
<td>&gt; 10 mL/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Acne, blackheads.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization

No information available.

Mutagenic Effects

No information available.

Carcinogenicity

The classification listed below for the petroleum distillates in this product pertains to those that contain more than 3% DMSO extract as measured by IP 346. The petroleum distillates in this product do not meet that criteria to be classified as carcinogens.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light naphthenic</td>
<td>A2</td>
<td>Group 1</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic</td>
<td>A2</td>
<td>Group 1</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

ACGIH: (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans

OSHA: (Occupational Safety & Health Administration)
X - Present

Reproductive Toxicity

No information available.
STOT - single exposure  No information available.
STOT - repeated exposure  No information available.
Aspiration Hazard  May be fatal if swallowed and enters airways

Numerical measures of toxicity - Product
Acute Toxicity  10% of the mixture consists of ingredient(s) of unknown toxicity.
The following values are calculated based on chapter 3.1 of the GHS document:
LD50 Oral  156600 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity  The environmental impact of this product has not been fully investigated.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light naphthenic 64742-53-6</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td></td>
<td></td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic 64742-52-5</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td></td>
<td></td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Chlorine additive</td>
<td>LC50 96 h: &gt; 300 mg/L static (Lepomis macrochirus) LC50 96 h: &gt; 0.0109 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: 94.5 - 271 mg/L static (Oncorhynchus mykiss) LC50 96 h: &gt; 0.1 mg/L flow-through (Lepomis macrochirus) LC50 96 h: &gt; 100 mg/L static (Pimephales promelas)</td>
<td></td>
<td></td>
<td>EC50 24 h: = 102 mg/L (Daphnia magna)</td>
</tr>
</tbody>
</table>

Persistence and Degradability  No information available.
Bioaccumulation  No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light naphthenic</td>
<td>&gt; 3.5</td>
</tr>
</tbody>
</table>

Other Adverse Effects  No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods  This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging  Since emptied containers retain material residue, follow label warnings even after container is emptied. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Thoroughly drain containers and offer for recycling. Do not attempt to clean container as residue is difficult to remove. Empty drums should be completely drained, properly closed and returned to a drum conditioner to be commercially cleaned. Do not re-use empty containers.

14. TRANSPORT INFORMATION
15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Legend</th>
<th>TSCA</th>
<th>DSL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
<td>DSL</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Not determined</td>
<td>DSL</td>
</tr>
</tbody>
</table>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>California</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hydrotreated light</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>naphthenic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Petroleum distillates, hydrotreated heavy naphthenic | X |
| Chlorine additive | X | X |

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Health Hazard 1 Flammability 1 Instability 0 Physical and Chemical Hazards -
HMIS Health Hazard 1 Flammability 1 Physical Hazard 0 Personal Protection X

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 17-Mar-2015
Revision Date 17-Mar-2015
Revision Note Initial Release.

General Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet