



**Not D.O.T. Hazardous
per 49CFR172**

MATERIAL SAFETY DATA SHEET

SECTION 1 IDENTITY

NAME OF PRODUCT:

MAN-863-5 OR MAN-863-55 HONING OIL

MANUFACTURER'S NAME AND ADDRESS:

SUNNEN PRODUCTS COMPANY
 7910 MANCHESTER
 ST. LOUIS, MO 63143

CONTACT:

CHUCK KORN

DATE:

MAY 5, 2008

EMERGENCY TELEPHONE NUMBER:

314-781-2105

SECTION 2 INGREDIENTS/IDENTITY (PER 29 CFR 1910.1200(g))

| CHEMICAL NAME OF COMPONENTS | CAS NO. | Wt.% | OSHA Z1A 8 HR TWA | OSHA Z1A STEL | OSHA Z1A SKIN mg./cu.m. | ACGIH TWA | CARCINOGENIC |
|--------------------------------|--------------|--------------|----------------------|------------------|-------------------------------|--------------|--------------|
| ANIMAL FATTY OIL | TRADE SECRET | TRADE SECRET | NONE | NONE | NONE | NONE | N |
| FATTY ACID ESTER | TRADE SECRET | TRADE SECRET | NONE | NONE | NONE | NONE | N |
| SULFUR ADDITIVE | TRADE SECRET | TRADE SECRET | NONE | NONE | NONE | NONE | N |
| METAL DEACTIVATOR | TRADE SECRET | TRADE SECRET | NONE | NONE | NONE | NONE | N |
| PRESERVATIVE | TRADE SECRET | TRADE SECRET | NONE | NONE | NONE | NONE | N |
| STABILIZER | TRADE SECRET | TRADE SECRET | NONE | NONE | NONE | NONE | N |

WHEN EVALUATED IN ACCORDANCE WITH THE PROVISIONS OF THE FEDERAL HAZARD COMMUNICATION RULE 29 CFR 1910.1200, MAN-863 WAS JUDGED TO BE NON-HAZARDOUS. MAN-863 MAY BE JUDGED TO BE HAZARDOUS WHEN EVALUATED IN ACCORDANCE WITH CERTAIN STATE OR COMMUNITY RIGHT TO KNOW REGULATIONS. THE EXACT COMPOSITION OF THIS MATERIAL IS BEING WITHHELD AS A TRADE SECRET OF SUNNEN PRODUCTS COMPANY. FOR FURTHER SAFETY AND HEALTH INFORMATION REGARDING THE COMPOSITION OF THIS MATERIAL CONTACT SUNNEN PRODUCTS.

These mixture ingredients are cited on the following lists:

| Name | CAS | Citations |
|-------------------|--------------|--------------|
| Animal Oil | Trade Secret | 5,6,10,21,22 |
| Fatty Acid Ester | Trade Secret | 9,10 |
| Sulfur Additive | Trade Secret | NONE |
| Metal Deactivator | Trade Secret | NONE |
| Stabilizer | Trade Secret | NONE |
| Preservative | Trade Secret | 5,6,9,17,22 |

1=IARC 2=OSHA 3=NTP 4=ACGIH 5=NFA49 6=NFA325M 7=DOT HMT 49CFR172.101 8=EPA, SARA III 9=RTECS 10=MA RTK 11=AK RTK 12=CA RTK 13=FL RTK 14=IL RTK 15=ME RTK 16=MN RTK 17=NH RTK 18=NJ RTK 19=Cincinnati, Ohio RTK 20=Norwood, Ohio RTK 21=PA RTK 22=RI RTK 23=WV RTK

SECTION 3 PHYSICAL & CHEMICAL CHARACTERISTICS

SPECIFIC GRAVITY (WATER=1)91

APPEARANCE AND ODOR Amber color liquid with fatty odor.
PERCENT VOLATILE BY WEIGHT <1%
REACTIVITY IN WATER No hazardous reactions.
BOILING POINT >460 F (235 C)
VAPOR DENSITY (Air=1)..... Heavier than air.
VAPOR PRESSURE (mm Hg) <.1mm Hg @ 68 F (20 C)
EVAPORATION RATE Negligible
SOLUBILITY IN WATER Negligible.

SECTION 4 SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store away from heat or flame. Read and follow container warnings. Refer to MSDS Section 7 & 8.

SECTION 5 CORROSIVELY AND REACTIVITY DATA

STABILITY: Material is stable under normal conditions of transport and storage. POLYMERIZATION: Hazardous polymerization does not occur. INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidation agents such as fuming nitric acid may produce hazardous reactions. Pollution by oxidation agents may cause spontaneous combustion and/or rancidity. CONDITIONS TO BE AVOIDED: Oxidizing conditions. HAZARDOUS DECOMPOSITION PRODUCTS: Combustion of material will produce oxides of Sulfur and Carbon. Material is organic and will slowly oxidize and decay forming compounds containing Carbonyl group, Hydroxyl group, Carboxyl group, Oxirane, glycerol, hydroperoxides, aldehydes, ketones and acids.

SECTION 6 HEALTH, FIRST AID AND MEDICAL DATA

ACUTE AND CHRONIC HEALTH EFFECTS AND EFFECTS OF OVEREXPOSURE. PRIMARY ROUTE(S) OF ENTRY ARE: INHALATION AND SKIN ABSORPTION. Abbreviations used in the following section: SKIN=Skin absorption. EYE=Eye contact. INHAL=Inhalation INGEST=Ingestion. THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA.

ACUTE: SKIN: Material is not sterile and may infect open cuts or sores. Skin irritation has not been tested. Material is expected to be non-irritating based on testing of similar products. EYE: Overheating (>200 F) material releases Acrolein (a toxic eye irritant) causing redness and burning of the eyes. Eye irritation has not been tested. Material is expected to be non-irritating based on testing of similar products. INHAL: Not established. Suggest ACGIH limits for vegetable oil mists of 5 mg/cu m. be observed. Symptoms of overexposure include coughing, sore throat, headache, chest pain and difficult breathing. Predisposing factors: Individuals with pre-existing respiratory impairments (such as emphysema) can display increased sensitivity to oil mists or vapors. INGEST: Loose bowel movements. Acute oral toxicity not established but believed to be low based on testing of similar materials. **CHRONIC SKIN:** Prolonged repeated skin contact can cause skin irritation or oil acne: inflammation and blackheads due to mechanical blockage of the pores. Predisposing factors: Usually individuals with sensitive skin or large amounts of body hair. EYE: None known. INHAL: None known. INGEST: None known.

EMERGENCY FIRST AID

INHALATION: Remove from further exposure. If unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, begin mouth to mouth resuscitation. **EYE CONTACT:** Remove contact lenses (if wearing) and flush eyes with water for 15 minutes. Seek medical attention to check for possible irritation. **SKIN CONTACT:** Wash contact areas with mild non-abrasive soap and water. **INGESTION:** Do not induce vomiting. Call physician or poison control center immediately.

SECTION 7 HANDLING, STORAGE AND USE PROCEDURES

NORMAL STORAGE AND HANDLING: Store away from heat or flame as the material will expand if overheated and possibly rupture the container spilling the contents. The spilled material will create a slip hazard and will burn

if ignited. If stored outdoors, store so as to shed water to prevent pollution by water and dirt. Plastic containers are brittle if frozen and may split and leak if handled roughly. Do not transfer to unlabeled containers. Since emptied containers retain material residue, follow label warnings even after container is emptied and do not reuse container for other purposes. All precautions detailed on the container label apply to partially full or empty containers. Do not transfer to unlabeled containers. Use personal protection equipment and precautions as specified in Section 8. Do not cut, braze, weld, solder, or pressurize container as doing so may cause container to EXPLODE, potentially causing serious injury or DEATH. **NORMAL USE:** Practice good personal hygiene while honing. Wash hands thoroughly to remove honing oil and microscopic particles of metal debris (suspended in the oil) before touching other parts of the body, food, drinks or smoking to avoid contact with or ingestion of metal fines. Material is for use in Honing Machines only. Material may be mixed with other Sunnen Honing Oils only. Clean material from parts using alkaline cleaner. Pollution by any amount of water or alkaline material will lead to the formation of non-hazardous soaps that clog the Honing Machine oil filter. Avoid prolonged inhalation of mist or vapors. **FOR INDUSTRIAL USE ONLY.** Not suitable for use in or around household or dwelling. **STEPS TO BE TAKEN IN CASE OF LEAKS OR SPILLS:** Contain and absorb on fire-retardant treated sawdust, diatomaceous earth or other suitable absorbant and place in fireproof waste container. Notify Coast Guard if spill could reach any waterways (1-800-424-8802) and also local/state authorities. Spilled material is greasy and produces a slip/fall hazard. **WASTE DISPOSAL METHOD:** The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR 261D), is not ignitable, not corrosive, not reactive and is not formulated with the metals cited in the EP Toxicity Test. Used material may be regulated. 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. Otherwise, containers should be disposed of in an environmentally safe manner and in accordance with applicable federal, state and local laws, regulations, rules, orders and ordinances.

SECTION 8 PERSONAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Normal honing operations using honing oil do not generate harmful levels of mists or fumes in the operators breathing zone. If unusual honing conditions generate any strong odor or detectable oil mist use NIOSH approved respirator rated for mineral oil mist to maintain oil mist levels below ACGIH TLV and OSHA PEL/TLV levels. **VENTILATION:** Normal ventilation is required. Do not operate honing machine within a closed un-ventilated space. If strong odors or oil mist is detected, use forced ventilation to maintain levels of fumes or mists below ACGIH TLV and OSHA PEL/TLV levels. **SKIN PROTECTION:** Not normally required for short exposures while honing with oil. Launder contaminated clothing before reuse. Avoid wearing clothing soaked with fluid. Note that honing oil flowing over the work-piece while honing will contain small chips from the work-piece and abrasive debris. These materials may be irritating to the skin and eyes. Some materials that are not normally irritating to the skin may be converted to a form that is irritating when trapped in skin pores and acted upon by sweat. Oil impervious gloves should be worn while honing in the event any symptoms of skin distress appear. Note that some barrier creams have been shown to increase skin absorption of metallic compounds and also that many people are allergic to chemicals used in protective gloves. **EYE PROTECTION:** Always wear NIOSH approved safety glasses when honing or operating machinery. **OTHER EQUIPMENT:** Oil-impervious apron if desired. **MEASURES TO BE TAKEN DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT THAT HAS BEEN IN CONTACT WITH THIS MATERIAL:** Same as for petroleum lubricating oil. Remove traces of material if soldering, welding, brazing, cutting or other process involving ignition sources to prevent a fire hazard.

SECTION 9 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 425 F (218 C) ASTM D-92. **EXTINGUISHING MEDIA:** Carbon dioxide, foam, dry chemical and water fog. **SPECIAL FIRE FIGHTING PROCEDURES:** For fires in enclosed areas, firefighters must use self-contained breathing apparatus. **AUTO-IGNITION TEMPERATURE:** Not Established **UNUSUAL FIRE AND EXPLOSION HAZARDS:** Combustion will produce oxides of carbon and sulfur. Towels, rags or other insulating absorbant fibrous media contaminated with any oil product should be stored in appropriate fireproof container that is emptied daily, to limit spontaneous combustion hazard. 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.

NOTICE

THIS MATERIAL SAFETY DATA SHEET ("MSDS") IS SUPPLIED PURSUANT TO THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S HAZARD COMMUNICATION RULE (THE "RULE"), 29 CFR 1910.1200. THIS MSDS IS BEING FURNISHED TO THE IMMEDIATE PURCHASER OF THE MATERIAL TO

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THIS MSDS IS OFFERED SOLELY TO COMPLY WITH THE RULE AND IS NOT INTENDED TO CREATE ANY LIABILITY OF ANY KIND ON THE PART OF SUNNEN PRODUCTS COMPANY ("SUNNEN"). IN NO EVENT WILL SUNNEN BE RESPONSIBLE FOR ANY DEATH, INJURY OR DAMAGE OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF, RELIANCE UPON, OR MISUSE OF THE MSDS. NO REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER NATURE, ARE MADE HEREUNDER. THIS MSDS IS NOT INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR EXTEND LICENSES UNDER VALID PATENTS.

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ATTACH LABEL TO MACHINE



ATTENTION

Contains

MAN-863 Honing Oil

Do not take internally. Practice good personal hygiene. Wash hand often. Read MSDS before using this material.