

# Material Safety Data Sheet

<b>Section 1. Chemical Product and Company Identification</b>	
<b>Common Name</b> <b>Hangsterfer's S-500 ®</b>	<b>Code</b> H-S500-06_D
<b>Supplier</b> Company Name: Company Address: Phone: Fax:	<b>MSDS#</b> 00445
<b>Synonym</b> Water Soluble Oil	<b>Validation Date</b> 04/06/2009
<b>Trade name</b> S-500	<b>Print Date</b> 04/06/2009
<b>Material Uses</b> Metal industry: Metalworking fluid	<b>In case of Emergency</b> Emergency Response: Chemtrec: (800) 424-9300 (USA) or (703) 527-3887 If there are any questions regarding this MSDS, contact Hangsterfer's Laboratories. Phone: (856) 468-0216.
<b>Manufacturer</b> Hangsterfer's Laboratories, Inc. 175 Ogden Road Mantua, NJ 08051 USA Phone: (856) 468-0216 Fax: (856) 468-0200	

<b>Section 2. Composition and Information on Ingredients</b>				
Name	CAS #	% by Weight	TLV/PEL	LC <sub>50</sub> /LD <sub>50</sub>
Refer to Section (8) for any applicable exposure limits.				

<b>Section 3. Hazards Identification</b>	
<b>Routes of Entry</b>	Eyes: Highly unlikely - Flush eyes with running water for at least 15 minutes. Get medical attention if necessary. Skin: Highly unlikely - Remove clothing and launder. Wipe off excess, and wash with mild soap and water. Inhalation: Highly unlikely - Place person in well ventilated area/location. Seek medical attention if necessary. Ingestion: Highly unlikely - Do not induce vomiting. Seek immediate medical attention.
<b>Potential Acute Health Effects</b>	Non-irritating to the eyes. Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-hazardous in case of inhalation. Very slightly to slightly irritating in case of ingestion.
<b>Potential Chronic Health Effects</b>	No known chronic health effects according to our database. <b>CARCINOGENIC EFFECTS:</b> None. <b>MUTAGENIC EFFECTS:</b> None. <b>TERATOGENIC EFFECTS</b> : None. The substance is not toxic to blood, kidneys, lungs, the nervous system, the reproductive system, liver, mucous membranes, heart, bladder, spleen, brain, digestive system, lymphatic system, peripheral nervous system, gastro-intestinal tract, cardiovascular system, upper respiratory tract, endocrins, immune system.

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. Seek medical attention if necessary.
<b>Skin Contact</b>	Wipe off excess, and wash with mild soap and water. Seek medical attention if necessary.
<b>Hazardous Skin Contact</b>	No additional hazardous information.
<b>Inhalation</b>	Place the person in a well ventilated area. Seek medical attention if necessary.
<b>Hazardous Inhalation</b>	No additional hazardous information.
<b>Ingestion</b>	Do not induce vomiting. Have conscious person drink several glasses of water or milk. If the person is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention immediately and show the container, label or Material Safety Data Sheet.
<b>Hazardous Ingestion</b>	No additional hazardous information.

**Section 5. Fire and Explosion Data**

<b>Flammability of the Product</b>	Combustible at elevated temperatures.
<b>Auto-Ignition Temperature</b>	Not determined.
<b>Flash Points</b>	OPEN CUP: 170°C (338°F) (Cleveland).
<b>Flammable Limits</b>	LOWER: 1% UPPER: 7%
<b>Products of Combustion</b>	Hazardous products of combustion can include carbon oxides (CO, CO <sub>2</sub> ), as well as other byproducts.
<b>Fire Hazards in Presence of Various Substances</b>	Very slightly to slightly flammable in presence of open flames and sparks. Non-flammable in presence of shocks, of heat, of oxidizing materials, of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis, of moisture.
<b>Explosion Hazards in Presence of Various Substances</b>	Non-explosive in presence of shocks, of heat, of oxidizing materials, of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis, of moisture.
<b>Fire Fighting Media and Instructions</b>	SMALL FIRE: Use DRY chemicals, CO <sub>2</sub> , water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
<b>Special Remarks on Fire Hazards</b>	No additional remark.
<b>Special Remarks on Explosion Hazards</b>	No additional remark.

**Section 6. Accidental Release Measures**

<b>Small Spill</b>	Mop up or absorb with an inert DRY material and place in an appropriate container.
<b>Large Spill</b>	Combustible material at elevated temperatures. Keep away from open flames, sparks, and sources of ignition. Stop leak if without risk. Mop up or absorb and place in appropriate container (s).

**Section 7. Handling and Storage**

<b>Handling</b>	Avoid contact with eyes. Keep container closed. Use in a well-ventilated area. Wash thoroughly after handling. Do not puncture or incinerate container(s).
<b>Storage</b>	Keep away from open flames, sparks, and sources of ignition. Emptied containers may contain product residues. Precautions also apply to product residues.

**Section 8. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	Good general ventilation should be sufficient to control airborne levels if user/worker activities generate mist(s). However, local exhaust ventilation may be necessary in areas of poor ventilation.
<b>Personal Protection</b>	Safety glasses. Work Apparel . Gloves.
<b>Personal Protection in Case of a Large Spill</b>	Splash glasses/goggles. Full suit. Boots. Gloves. Suggested clothing should be sufficient; contact the manufacturer regarding questions with this product.

Chemical Name or Product Name	CAS #	Exposure Limits
Severely Refined Petroleum Distillates(heavy): If mists are generated, the following exposure limits apply:	64742-52-5	TWA: 5 (mg/m <sup>3</sup> ) from ACGIH (TLV) TWA: 5 (mg/m <sup>3</sup> ) from OSHA (PEL)
Severely Refined Petroleum Distillates(light): If mists are generated, the following exposure limits apply:	64742-53-6	TWA: 10 (mg/m <sup>3</sup> ) from ACGIH (TLV) TWA: 5 (mg/m <sup>3</sup> ) from OSHA (PEL)

**Section 9. Physical and Chemical Properties**

<b>Physical state and appearance</b>	Liquid.	<b>Odor</b>	Mild
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	Mild
<b>pH (10% Soln/Water)</b>	9.1	<b>Color</b>	Green
<b>Boiling Point</b>	143°C (289°F).		
<b>Melting Point</b>	May start to solidify at 0°C (32°F).		
<b>Critical Temperature</b>	Not determined.		
<b>Specific Gravity</b>	0.96		
<b>Vapor Pressure</b>	<0.01 mm of Hg (@ 20°C)		
<b>Vapor Density</b>	>5 (Air = 1)		
<b>Volatility</b>	VOC Content: 8.58% (v/v).		
<b>Odor Threshold</b>	Not determined.		
<b>Evaporation rate</b>	<0.01 [Butyl acetate.]		
<b>Viscosity</b>	NA		
<b>Water/Oil Dist. Coeff.</b>	The product is more soluble in water.		
<b>Ionicity (in Water)</b>	Non-ionic.		
<b>Dispersion Properties</b>	Dispersible in cold water, hot water. Slightly dispersed in methanol. Not dispersible in diethyl ether, n-octanol, acetone.		
<b>Solubility</b>	Soluble in cold water, hot water. Slightly soluble in methanol. Insoluble in diethyl ether, n-octanol, acetone.		

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**Physical Chemical Comments** No additional remark.

**Section 10. Stability and Reactivity Data**

**Chemical Stability** The product is stable.

**Conditions of Instability** No additional remark.

**Incompatibility with various substances** Reactive with acids.  
Slightly reactive to reactive with oxidizing agents.  
Very slightly to slightly reactive with alkalis.  
Non-reactive with reducing agents, combustible materials, organic materials, metals, moisture.

**Hazardous Decomposition Products** Hazardous products of decomposition can include carbon oxides (CO, CO<sub>2</sub>), as well as other byproducts.

**Hazardous Polymerization** Will not occur.

**Section 11. Toxicological Information**

**Toxicity to Animals** Acute oral toxicity (LD50): >= 15000 mg/kg (Rat) (Determined experimentally).  
Acute Dermal Irritation/Corrosion (OECD 404): Result: Non-irritating and Non-corrosive(Rabbit).

**Chronic Effects on Humans** No known chronic effects on humans.

**Other Toxic Effects on Humans** Ames Screening Assay (Reverse Bacterial Mutation Screen): Negative [Pass]

**Special Remarks on Toxicity to Animals** No additional remark.

**Special Remarks on Chronic Effects on Humans** No additional remark.

**Special Remarks on other Toxic Effects on Humans** No additional remark.

**Section 12. Ecological Information**

**Ecotoxicity** Not determined to be an ecotoxin.

**BOD5 and COD** Contact the manufacturer for further information.

**Products of Biodegradation** Hazardous products of biodegradation can include carbon oxides (CO, CO<sub>2</sub>), as well as other byproducts

**Toxicity of the Products of Biodegradation** The products of degradation are non-toxic.

**Special Remarks on the Products of Biodegradation** No additional remark.

**Section 13. Disposal Considerations**

**Waste Disposal** Recycle to process, if possible. Consult your local or regional authorities. Dispose of in accordance with local and federal regulations. Contact the manufacturer for further information.

**Section 14. Transport Information**

<b>DOT Classification</b>	Not a DOT controlled material in the United States of America(U.S.A.). Product is considered safe for transport in the U.S.A. Product is not regulated by the United Nations(U.N.).
<b>Proper Shipping Name</b>	NONE
<b>DOT Identification Number</b>	Not applicable (PIN and PG).
<b>Packing Group</b>	NONE
<b>Hazardous Substances Reportable Quantity</b>	Not applicable.
<b>Special Provisions for Transport</b>	No special provisions for transport.
<b>TDG Classification</b>	Not controlled under TDG (Canada).
<b>IMDG Classification</b>	Not controlled under IMDG.
<b>IATA Classification</b>	Not controlled under IATA.

**Section 15. Regulatory Information**

<b>Federal and State Regulations</b>	All ingredients that make up this product are listed on the TSCA inventory and are approved for industry use in the U.S.A.  All ingredients that make up this product are listed on the Canadian Domestic Substances List (DSL/LIS) and are approved for import and use in Canada.
<b>Other Classifications</b>	<p><b>WHMIS (Canada)</b> Not controlled under WHMIS (Canada).</p> <p><b>DSCL (EEC)</b> Not controlled under DSCL (Europe).</p> <p>Japan: Not controlled under the Chemical Substance Control Law(MITI).</p> <p>Australia: Not controlled under the National Industrial Chemicals Notification and Assessment Act(NICNAS).</p>

**Section 16. Other Information**

<b>HMIS (U.S.A.)</b>	<table border="1"> <tr> <td>Health Hazard</td> <td>0</td> </tr> <tr> <td>Fire Hazard</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> <tr> <td>Personal Protection</td> <td>a</td> </tr> </table>	Health Hazard	0	Fire Hazard	1	Reactivity	0	Personal Protection	a	<b>National Fire Protection Association (U.S.A.)</b>		<p><b>Health</b></p> <p><b>Fire Hazard</b></p> <p><b>Reactivity</b></p> <p><b>Specific hazard</b></p>
Health Hazard	0											
Fire Hazard	1											
Reactivity	0											
Personal Protection	a											

<b>References</b>	Manufacturer's Information Database.
<b>Other Special Considerations</b>	<p>Mineral Oil mist(s) may develop when the product is misted. Exposure limits for such mist(s): OSHA PEL: 5.0 mg/m3 (8-hour TWA). ACGIH TLV: 5.0 mg/m3. ACGIH STEL: 10.0 mg/m3.</p> <p>The chlorinated paraffins that make up one of the ingredients of this product are long-chain chlorinated paraffins, those paraffins having an average chain length greater than C<sub>18</sub></p> <p>IP 346 DMSO Solvent Extractable Polycyclic Aromatic Hydrocarbons (PCA's, PAH's): Pass</p>

<b>Validated by Manufacturer on 04/06/2009.</b>	<b>Verified by Company.</b>
	<b>Printed 04/06/2009.</b>

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**Emergency Response: Chemtrec: (800) 424-9300 (USA) or (703) 527-3887 If there are any questions regarding this MSDS, contact Hangsterfer's Laboratories. Phone: (856) 468-0216.**

**Notice to Reader**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*