

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification	
Common Name Hangsterfer's R-100	Code H-R-100-03_D
Supplier Company Name: Company Address: Phone: Fax:	MSDS# 00430
Synonym Synthetic Coolant	Validation Date 4/1/2003
Trade name R-100	Print Date 1/26/2004
Material Uses Metal industry: Metalworking Fluid	In case of Emergency 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.
Manufacturer Hangsterfer's Laboratories P.O. Box 128 Mantua, NJ 08051 USA Phone: (856) 468-0216 Fax: (856) 468-0200	

Section 2. Composition and Information on Ingredients				
Name	CAS #	% by Weight	TLV/PEL	LC ₅₀ /LD ₅₀
No hazardous ingredient.				

Section 3. Hazards Identification	
Routes of Entry	Eyes: Possible - 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 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.
Potential Acute Health Effects	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.
Potential Chronic Health Effects	No known chronic health effects according to our database. CARCINOGENIC EFFECTS: None. MUTAGENIC EFFECTS: None. TERATOGENIC EFFECTS: 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	
Eye Contact	Flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. Seek medical attention if necessary.
Skin Contact	Wipe off excess, and wash with mild soap and water. Seek medical attention if necessary.
Hazardous Skin Contact	No additional information.
Inhalation	Place the person in a well ventilated area. Seek medical attention if necessary.
Hazardous Inhalation	No additional information.

Continued on Next Page

Ingestion	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.
Hazardous Ingestion	No additional information.

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not applicable.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Not considered as a product presenting risks of explosion according to our database.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	No additional remark.
Special Remarks on Explosion Hazards	No additional remark.

Section 6. Accidental Release Measures

Small Spill	Mop up or absorb with an inert DRY material and place in an appropriate container.
Large Spill	Mop up or absorb with an inert DRY material and place in appropriate container(s).

Section 7. Handling and Storage

Handling	Avoid contact with eyes. Keep container closed. Use in a well-ventilated area. Wash thoroughly after handling. Do not puncture or incinerate container(s).
Storage	Store in a cool, dry, well-ventilated area and out of direct sunlight. Emptied containers may contain product residues.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	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.	
Personal Protection	Safety glasses. Work Apparel. Gloves.	
Personal Protection in Case of a Large Spill	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
No hazardous ingredients.		

Continued on Next Page

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Mild
Molecular Weight	Not applicable.	Taste	Bland
pH (10% Soln/Water)	8.9	Color	Amber
Boiling Point	100°C (212°F)		
Melting Point	May start to solidify at 0°C (32°F).		
Critical Temperature	Not determined.		
Specific Gravity	NA		
Vapor Pressure	<0.01 mm of Hg (@ 20°C)		
Vapor Density	>1 (Air = 1)		
Volatility	VOC Content: 0.0% (v/v).		
Odor Threshold	Not determined.		
Evaporation rate	<0.1 [Butyl Acetate].		
Viscosity	NA		
Water/Oil Dist. Coeff.	The product is much more soluble in water.		
Ionicity (in Water)	Non-ionic.		
Dispersion Properties	Dispersible in cold water, hot water. Slightly dispersed in methanol. Not dispersible in diethyl ether, n-octanol, acetone.		
Solubility	Easily soluble in cold water, hot water. Very slightly soluble in methanol, acetone. Insoluble in diethyl ether, n-octanol.		
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.
Hazardous Decomposition Products	Decomposition can result in release of carbon oxides(CO, CO ₂) and nitrogen oxides(NO, NO ₂).
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): >= 5000 mg/kg (Rat). 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	No additional remark.

Continued on Next Page

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	Products of biodegradation can include carbon oxides(CO, CO ₂) and nitrogen oxides(NO, NO ₂).
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

DOT Classification	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.).
Propper Shipping Name	NONE
DOT Identification Number	Not applicable (PIN and PG).
Packing Group	NONE
Hazardous Substances Reportable Quantity	Not applicable.
Special Provisions for Transport	No special provisions for transport.
TDG Classification	Not controlled under TDG (Canada).
IMDG Classification	Not controlled under IMDG.
IATA Classification	Not controlled under IATA.

Section 15. Regulatory Information

Federal and State Regulations	<p>All ingredients that make up this product are listed on the TSCA inventory and are approved for industry use in the U.S.A.</p> <p>None of the ingredients that make up this product are listed on or regulated by Proposition 65(CA).</p> <p>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.</p>
Other Classifications	<p>WHMIS (Canada) Not controlled under WHMIS (Canada).</p> <p>DSCL (EEC)</p>

Not controlled under DSCL(Europe).

Japan: Not controlled under the Chemical Substance Control Law(MITI).

Australia: Not controlled under the National Industrial Chemicals Notification and Assessment Act(NICNAS).

Section 16. Other Information

HMIS (U.S.A.)

Health Hazard	*	1
Fire Hazard		1
Reactivity		0
Personal Protection		a

National Fire Protection Association (U.S.A.)

Health



Fire Hazard

Reactivity

Specific hazard

References

Manufacturer's Information Database.

Other Special Considerations

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.

IP 346 DMSO Solvent Extractable Polycyclic Aromatic Hydrocarbons (PCA's, PAH's): Pass

Validated by Manufacturer on 4/1/2003.

Verified by Company.

Printed 1/26/2004.

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.