

Material Safety Data Sheet

*Prepared according to OSHA Hazard Communication Standard (29 CFR 1910.1200) and ANSI MSDS Standard (Z400.1).
 Complies with Canadian Workplace Hazardous Materials Information System (WHMIS) standards.*

Revision Date NOT AUTHORIZED

Revision Number NOT AUTHORIZED

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Crystal Cut 777, 10% Dilution
Product Code	667A
Chemical Family	Synthetic Fluid
Material Uses	Metalworking Fluid
Manufacturer	Hangsterfer's Laboratories, Inc. 175 Ogden Road Mantua, NJ 08051 Phone 856-468-0216 Fax 856-468-0200 For more information contact: bblattenberger@hangsterfers.com
Emergency Telephone Number	Chemtrec 1-800-424-9300 in US Canutec 1-613-996-6666 in Canada For international assistance, dial Chemtrec US number 703-527-3887

2. HAZARDS IDENTIFICATION

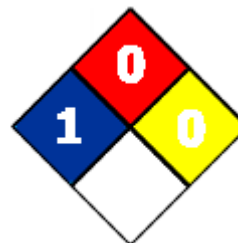
Acute Health Effects

Skin	Not expected to be a primary skin irritant.
Eye	Contact with eyes may cause irritation.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Ingestion is not considered a likely route of exposure. Ingestion may result in minor gastrointestinal discomfort.

HMIS

Health Hazard	1
Fire Hazard	0
Reactivity	0

NFPA



Chronic Health Effects

No information available.

Carcinogenic Effects

Information on individual ingredients which may have carcinogenic effects, if any, will be found in Section 11 and 15.

Aggravated Medical Conditions

No information available.

Miscellaneous Hazards

Water diluted metalworking fluid must be monitored according to industry standards for maintenance of metalworking fluid. Microbiological condition of fluid must be monitored. Uncontrolled microbiological growth has been associated with health complaints in the workplace.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Name	CAS-No	Weight %	OSHA PEL	Carcinogen Lists	ACGIH TLV
Proprietary Surfactant	Proprietary	1 - 4.99	Not Listed	See Section 11	Not Listed

If any of the components of this product are defined as hazardous by OSHA Hazard Communication Standard 1910.1200 and are present at 1% or more (0.1% or more for carcinogens) they will be listed in this section. If no components appear in this section, no components of the product meet or exceed the reporting requirements. OSHA PELs and ACGIH TLVs refer to the concentration in air of the specific chemical as measured by specific analytical methods.

4. FIRST AID MEASURES

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

Inhalation

Move to fresh air. Consult a physician if necessary.

Ingestion

Do not induce vomiting. Drink plenty of water. Consult a physician if necessary.

5. FIRE-FIGHTING MEASURES

Flammable Properties

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes

Suitable Extinguishing Media

Water spray or fog, dry chemical, carbon dioxide (CO₂) or foam. Cool containers with flooding quantities of water until well after fire is out.

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

Hazardous Combustion Products

Carbon dioxide (CO₂). Carbon monoxide. Oxides of nitrogen and ammonia vapors.

Specific Hazards Arising from the Chemical

May be ignited by heat, sparks or flames. Keep product and empty container away from heat and sources of ignition.

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

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Personal Precautions	Avoid contact with the skin and the eyes. Remove all sources of ignition.
Methods for Containment	Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.
Methods for Clean-up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Other Information	Report spills as required to the appropriate authorities.

7. HANDLING AND STORAGE

Handling	Avoid contact with eyes. Keep in a well ventilated place. Do not puncture, crush or incinerate containers.
Storage	Keep container tightly closed in a dry and well ventilated place. Keep away from direct sunlight. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines	The table below lists known exposure levels for any components of this product which are considered hazardous. Keep in mind, however, that these exposure levels are for air levels of the individual ingredients as measured by specific analytical methods. See also Engineering Controls
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Chemical Name	ACGIH TLV	OSHA PEL	Quebec OEL	Ontario TWAEV	EU OEL
Proprietary Surfactant	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Engineering Controls	Ensure adequate ventilation, especially in confined areas. Use in well-ventilated area. If user operations generate mist, use process enclosures, local exhaust ventilation or other engineering controls to control airborne levels below TLV TWA: 5 mg/m ³ and TLV STEL: 10 mg/m ³ .
Eye/face Protection	Safety glasses with side-shields.
Skin Protection	Long sleeved clothing. Wear protective gloves/clothing.
Respiratory Protection	If personal exposure levels cannot be maintained below accepted exposure limits, NIOSH/MSHA approved respiratory protection should be worn.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear/Amber.	Odor	Mild.
Physical State	Liquid.	pH (10% soln/water)	No data available.

Flash Point	No data available.	Boiling Point/Range	No data available.
Melting Point/Range	No data available.		
Specific Gravity (Water=1)	No data available.	Solubility In Water	No data available.
Vapor Pressure	No data available.	Vapor Density (Air=1)	No data available.
VOC Content, % Vol	No data available.	Volatility	No data available.
Viscosity	No data available.		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Do not distill to dryness. Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.
Incompatible Materials	Acids. Incompatible with oxidizing agents. Alkaline.
Hazardous Decomposition Products	Carbon oxides., Nitrogen oxides (NOx) and ammonia.
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50 Oral: > 5000 mg/kg (rat, predicted based on data on components).

LD50 Dermal: > 2000 mg/kg (rabbit, predicted based on data on components).

The table below indicates toxicological information for specific ingredients indicated. If no table appears, no toxicological information was found.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Proprietary Surfactant	No information available	No information available	No information available

Irritation Not expected to be a primary skin irritant based on information on product components. May be a weak eye irritant based on data on product components.

Corrosivity Not expected to be corrosive. Based on data on components.

Sensitization No information available.

Chronic Toxicity No information available.

Carcinogenicity This product contains no ingredients with a concentration of 0.1% or more which are known to be carcinogenic.

Chemical Name	IARC	ACGIH	NTP Carc	OSHA
Proprietary Surfactant	Not Listed	Not Listed	Not Listed	Not Listed

Other Adverse Effects No information available.

12. ECOLOGICAL INFORMATION

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Ecotoxicity

Ecotoxicity and biodegradability of this complete mixture have not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water and should not be considered readily biodegradable. If information is available on any of the individual components listed in Section 2, it will appear in a table below.

Chemical Name	Freshwater Algae	Freshwater Fish Species Data	Water Flea	DOT Marine Pollutant
Proprietary Surfactant	No information available	No information available	No information available	Not Listed

Persistence/Degradability

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of contents/container in accordance with local regulation.

14. TRANSPORT INFORMATION

DOT Not regulated.

TDG Not regulated.

MEX Not regulated.

ICAO Not regulated.

IATA Not regulated.

IMDG/IMO Not regulated.

RID Not regulated.

ADR Not regulated.

ADN Not regulated.

15. REGULATORY INFORMATION

U.S. Regulations & Inventories No regulatory requirements found. All components of this product are either listed on the TSCA inventory or are exempt from listing requirements.

Chemical Name	CAS-No	TSCA 12(b)	CERCLA/SARA 313 (de minimis concentration)	SARA Hazardous Substance Required Qty
Proprietary Surfactant	Proprietary	Not Listed	Not Listed	Not Listed

U.S. State Right-to-Know Regulations Not known to contain any chemicals listed under California Proposition 65.

Canada Regulations & Inventories No regulatory requirements found. All components of this product are either listed on applicable inventories or are exempt from listing requirements.

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This product has been classified in accordance with the hazard criteria of the Canadian CPR (Controlled Products Regulations) and the MSDS contains all the information required by the CPR.

Product Classification: Not hazardous

Chemical Name	CAS-No	WHMIS
Proprietary Surfactant	Proprietary	Not listed

International Regulations & Inventories No regulatory requirements found. The information on global inventory compliance is incomplete for this product.

16. OTHER INFORMATION

Regulatory Lists Searched & Other Sources of Information

ACGIH - American Convergence of Governmental Industrial Hygienists
ADN - European Agreement for International Carriage of Dangerous Goods by Inland Waterways
ADR - European Agreement for International Carriage of Dangerous Goods by Road
AICS - Australian Inventory of Chemical Substances
ANSI - American National Standards Institute
CAP65 - California Proposition 65 Hazard List
CAS - Chemical Abstract Services
CERCLA - Comprehensive Environmental Response, Compensation & Liability Act
CHINA - China Inventory
CPR - Canadian Controlled Products Regulations
DOT - United States Department of Transportation
DSL - Canada Domestic Substances List
EINECS - European Union (EU) European Inventory of Existing Commercial Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
ICAO - International Civil Aviation Organization
IMDG - International Maritime Dangerous Goods Code
MARTK - Massachusetts Right To Know List
NDSL - Canada Non-Domestic Substances List
NFPA - United States National Fire Protection Association
NIOSH - United States National Institute for Occupational Safety & Health
NJRTK - New Jersey Right To Know List
NTP - United States National Toxicology Program
OSHA - United States Occupational Safety & Health Administration
PARTK - Pennsylvania Right To Know List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
RCRA - United States Resources Conservation & Recovery Act
RID - European Agreement for International Carriage of Dangerous Goods by Rail
RIHSL - Rhode Island Hazardous Substance List
SARA - United States Superfund Amendments & Reauthorization Act
TDG - Canada Transportation of Dangerous Goods Act
TSCA - US Toxic Substances Control Act
WHMIS - Canada Workplace Hazardous Materials Information System

Definitions

EC50 - Effective Concentration (Concentration of a compound where 50% of the expected effect is observed.)
LC50 - Lethal Concentration (The concentration in water that will kill 50% of the test animals within a specific period of time, usually 96 hours.)
LD50 - Lethal Dose (The single dose that will kill 50% of the test animals by any route other than inhalation such as by ingestion or skin contact.)
OEL - Occupational Exposure Limit
PEL - Permissible Exposure Limits
STEL - Short Term Exposure Limit
TLV - Threshold Limit Value
TWA - Time Weighted Average
TWAEV - Time Weighted Average Exposure Value

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Preparation Date

03-10-2009

The information provided on this MSDS 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 MSDS