Expect Service

Radiation Products Design Inc

SAFETY DATA SHEET

RPD INFORMATION

Address	5218 Barthel Industrial Drive Albertville, MN 55301
Website	www.rpdinc.com
Email	sales@rpdinc.com
Phone	763-497-2071 or 800-497-2071
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RPD PRODUCT INFORMATION

RPD is an authorized distributor

Item Number	Description
878-350	Block Casting Station, 120 VAC
878-351	Block Casting Station, 220 VAC

Material Safety Data Sheet

UNI-GARD

Uni-Proof Non-Toxic A/F –50 **Revised 08/09**

I. General Information

Chemical Name & Synonyms:	Antifreeze/Propylene Glycol, Ethyl Alcohol based
Chemical Family:	Polyalcohol
Proper DOT Shipping Name:	Antifreeze Non-Toxic
Trade Name & Synonyms:	**Non-Toxic A/F –50**
Formula:	n/a
DOT Hazard Classification:	Non-hazardous

Manufacturer: ***South/Win Ltd.***
272 Nashua Street
Leominster, MA 01453
(978) 537-5518
CHEMTREC: ***(800) 424-9300***

II. Ingredients

Principal Hazardous Components		Percent	Threshold Limit Value/Units
Ethyl Alcohol	CAS# 64-17-5	18-25%	1000 ppm
Propylene Glycol	CAS# 57-55-6	3-5%	
Ethyl Acetate	CAS# 141-78-6	<1%	400 ppm
Water		70-80%	
DiPotassium Phosphate	CAS# 7758-11-4	<1%	None established

III. Physical Data

Boiling Point (°F):	185
Vapor Pressure (mm Hg.):	14 @ 68 Degrees F
Vapor Density (Air=1):	3
Solubility in Water:	Infinite
Appearance & Odor:	Clear orange or blue liquid with cinnamon odor.
Specific Gravity (H_2O = 1):	.980-.995
Percent Volatile By Volume (%):	75-85
Evaporation Rate:	0.1
pH:	8.0-9.0

IV. Fire & Explosion Data

Flash Point (Test Method):	110 Degrees F TCC
Flammable Limits:	--
Auto Ignition Temperature:	n/a
LEL:	3.3
UEL:	19.0
Extinguishing Media:	Use water fog, alcohol foam, dry chemical or CO2.
Special Fire Fighting Procedures	Flammable. Clear fire area of unprotected personnel. Do not enter confined fire space without coats, gloves, and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire to exposed containers with water.
Unusual Fire & Explosion Hazards:	Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up, which could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure.

V. Health Hazard Data

OSHA Permissible Exposure Limits:	None established.
ACGIH Threshold Limit Value:	1000 ppm
Carcinogen – NTP Program:	n/a
Carcinogen – IARC Program:	n/a
Symptoms of Exposure:	Early to moderate Central Nervous System depression may be evidenced by giddiness, headache, dizziness, and nausea in extreme cases, unconsciousness and death may occur. Liver damage may be evidenced by loss of appetite, jaundice (yellowish skin color) and sometimes pain in the upper abdomen on the right side.
Medical Conditions Aggravated By Exposure:	Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired liver function from pre-existing disorders may also be aggravated.
Primary Route(s) of Entry:	Eye, skin, inhalation, ingestion.

Emergency First Aid:	Eye: Flush eyes immediately with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention. Skin: Flush skin with water. If irritation occurs, get medical attention. Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

VI. Reactivity Data

Stability:	Stable.
Conditions to Avoid:	Avoid heat, sparks, flame.
Incompatibility: Materials to Avoid:	Strong oxidizing agents.
Hazardous Polymerization:	Will not occur.
Conditions to avoid:	
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide.

VII. Fire & Explosion Data

Spill Response:	Warning: Combustible. Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Large spills: Evacuate the hazard area of unprotected personnel. Wear appropriate clothing. Shut off source of leak only if safe to do so. Dike and contain. If vapor cloud forms, water fog may be used to suppress; contain run-off. Remove with vacuum trucks.
Waste Disposal Method:	(Under EPA-RCRA 940 CFR 261.21). IF this product becomes a waste material, it would be ignitable hazardous waste, Hazardous Waste No. D001. Refer to latest EPA or state regulation regarding proper disposal.

VIII. Special Protection Information

Eye Protection:	Wear chemical goggles to prevent eye contact.
Skin Protection:	Wear chemically resistant gloves and clothing to prevent overexposure.
Ventilation Recommended:	Use adequate ventilation.

Other Protection:	Eye wash fountain and safety shower should be available.

IX. Special Precautions

Hygienic Practices In Handling & Storage:	Keep liquid and vapor away from heat, sparks, and flame. Surfaces that are sufficiently hot may ignite liquid product in the absence of sparks or flame. Extinguish pilot lights and cigarettes. Turn off other sources of ignition prior to use and until all vapors are gone. Vapors may accumulate and travel to ignition sources distant from the handling site.
Precautions for Repair & Maintenance of Contaminated Equipment:	Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld, or perform similar operations on or near containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.
Other Precautions:	Wash with soap and water before eating, drinking, smoking, or using toilet facilities. Launder contaminated clothing before reuse.

**********End of MSDS**********

Key:	N/A	Not Applicable
	ND	Not Determined

The information contained herein is based on the data available to us and is believed to be correct. However, North/Win and/or the preparer make no warranty, expressed or implied, regarding the accuracy o this information or the results to be obtained from the use thereof. North/Win assumes no responsibility for injury from the use of the product described herein.

MATERIAL SAFETY DATA SHEET

EDM-30

SECTION 1 Product and Company Information

Product identifier	Rustlick EDM-30
Product use	Dielectric oil
Manufacturer	*ITW* ROCOL North America 3624 West Lake Avenue Glenview, Illinois 60026 1-800-452-5823
Emergency info	CHEMTREC, 1-800-424-9300

SECTION 2 Hazards Identification

Emergency overview	No hazards resulting from the material supplied.
HMIS rating	
Health	**1**
Flammability	**1**
Reactivity	**0**
Personal protection	**B**
Routes of entry	Skin, eyes, respiratory tract, digestive system.
Potential short-term health effects	
Skin	None
Eyes	May cause mild irritation.
Inhalation	May cause irritation to nose and throat. Inhalation of vapors or mist may cause headache, dizziness, and drowsiness.
Ingestion	Harmful if swallowed. Ingesting large quantities may cause injury or death.
Potential long-term health effects	Not known

SECTION 3 Chemical Composition/Hazardous Ingredients

Ingredients	**CAS #**	**OSHA/PEL** (TWA)	**ACGIH/TLV** (TWA)
Aliphatic hydrocarbon	64742-47-8	5 mg/m^3	5 mg/m^3
Technical white oil	8042-47-5	5 mg/m^3	5 mg/m^3

* Exact chemical identities and percentages are withheld as trade secrets provided under 29CFR.1910.1200.

SECTION 4 First Aid Measures

Skin contact	Immediately wash the exposed area thoroughly with soap and water. Remove contaminated clothing. Wash before reuse. If irritation persists, consult physician.
Eye contact	In case of contact, immediately flush with water for at least 15 minutes. If irritation persists, consult physician.
Inhalation	If inhaled, move to fresh air. If irritation persists, consult physician.
Ingestion	If swallowed, DO NOT induce vomiting. Contact a physician immediately. If vomiting occurs, keep head below hips to prevent aspiration of liquid into the lungs.

SECTION 5 Fire Fighting Measures

Flammable limits	Not available
Products of combustion	Oxides of carbon (CO, CO_2).
Flash point (method)	> 200°F (93°C) (PMCC)
Auto-ignition temperature	Not available
Explosion data	
Sensitivity to mechanical impact	None known
Sensitivity to static discharge	None known
Fire-fighting media and instructions	In case of fire use carbon dioxide, dry chemicals, or foam.
Special fire-fighting procedures/equipment	Self contained breathing apparatus and protective clothing is recommended to protect fire fighters from any hazardous combustion or decomposition products. Pressure build-up in the closed container may occur due to heat exposure.

SECTION 6 Accidental Release Measures

Personal precautions	Use appropriate safety equipment. Avoid inhaling vapors or mist. Avoid contact with eyes, skin and clothing.
Environmental precautions	Do not allow spilled product to enter drains, sewers, or waterways.
Cleanup	Ventilate area. Eliminate all sources of heat and flame. Stop leak if safe to do so. Contain spill. Use absorbent material, such as vermiculite or sand. Place in suitable container for later disposal.
Prohibited materials	None

SECTION 7 Handling and Storage

Handling	Use appropriate safety equipment. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep away from extreme heat. Keep container closed when not in use.
Storage	Store away from extreme heat, flame, or ignition sources. Pressure build up may occur due to heat exposure or temperature change. Release pressure by slowly opening container.

SECTION 8 Exposure Controls and Personal Protection

Hygiene measures	Avoid contact with eyes, skin and clothing. Do not eat, drink, or smoke while handling this product.
Control measures	General ventilation should be sufficient. Providing approved respirators for emergencies, or when mist/vapor concentrations are unknown may be warranted. Availability of eye wash station, washing facilities and safety shower is recommended.
Personal protection	
Skin	Wear suitable glove. Chemical resistant gloves, such as polyvinyl chloride-coated, are recommended. Wear protective clothing suitable to prevent contact. Remove contaminated clothing and launder before wearing.
Eyes	Safety glasses are recommended.
Respiratory	Not normally required. Control vapor or mist concentrations below exposure limits through use of general or local exhaust ventilation.

SECTION 9 Physical and Chemical Properties

Physical state	Liquid
Color	Clear, colorless
Odor	Mild
Viscosity at 40°C	3.5 cSt
pH	Not applicable
Boiling point	300°F (149°C)
Melting/freezing point	Not available
Vapor pressure	Not available
Solubility in water	Insoluble
Specific gravity	0.80
Vapor density	> 1
Evaporation rate	< 1
Volatile organic compounds	Nil

SECTION 10 Reactivity and Stability

Stability and reactivity	Stable. Hazardous polymerization will not occur.
Conditions to avoid	None
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition or burning will produce carbon monoxide and carbon dioxide (CO, CO_2).

SECTION 11 Toxicological Information

LD50	Not determined for the product.
LC50	Not determined for the product.
Carcinogenic	None of the ingredients in this product are listed by IARC, ACGIH, NTP or OSHA as carcinogenic.
Teratogenicity	No data
Mutagenicity	No data
Medical conditions aggravated by exposure	Skin disorders.

SECTION 12 Ecological Information

Environmental toxicity	None reported
Aquatic toxicity	No data

SECTION 13 Disposal Considerations

Handling for disposal	Absorb on suitable material and follow procedures listed below.
Methods of disposal	Dispose of in a manner that is recommended by local, state, provincial and federal laws and regulations.

SECTION 14 Transportation Information

Not classified as hazardous for transport according to IATA, 49CFR, and IMDG regulations.

SECTION 15 Regulatory Information

WHMIS information	No data
CEPA information	No data
TSCA information	All ingredients are included in the TSCA inventory.
SARA Title III	Contains no ingredients which exceed De Minimus reporting requirements.

SECTION 16 Other Information

Prepared by *ITW* ROCOL North America, Leroy Hitchcock, 1-800-452-5823

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References

1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices, 2004.
2. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2004.
3. US EPA Title III Lists of Lists - October 2001 version.
4. Material Safety Data Sheets from manufacturer.