



SAFETY DATA SHEET

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SECTION 1: COMPANY AND CHEMICAL IDENTIFICATION

Product: ALLIED SSH100

Distributed By: WALLACE CONSTRUCTION SPECIALTIES LTD
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Emergency Contact: CANUTEC # 613-996-6666

SECTION 2: INFORMATION ON INGREDIENTS

<u>Chemical Name:</u>	<u>CAS Number:</u>	<u>Weight:</u>
Water	0007732-18-5	Trade Secret
Glyoxal	0000107-22-2	Trade Secret
Ethylene Glycol (1, 2 Ethanediol)	0000107-21-1	Trade Secret
Proprietary Ingredients		Trade Secret

Amounts specified are typical and do not represent a specification. Proprietary ingredients are, non-hazardous, and/or present at amounts below reportable limits.

Notes: No Additional Information

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview

Acute Health Effects:

Harmful if inhaled. May be harmful if swallowed. Causes eye and skin tract irritation. May cause sensitization by skin contact. May cause irritation to the gastrointestinal tract with vomiting, nausea and diarrhea. Vapour mists can cause irritation to the mucous membranes and respiratory tract.

ETHYLENE GLYCOL: May cause eye and skin irritation with symptoms such as a stinging, tearing, swelling and redness. Exposure to high concentrations may cause nausea, vomiting, dizziness, drowsiness, weakness, headache and other central nervous system effects.

Chronic Health Effects:

May cause skin sensitization.

ETHYLENE GLYCOL: Overexposure has been suggested as a cause of kidney damage, liver damage, and reproductive effects.

GLYOXAL: May cause skin sensitization. Overexposure may cause effects to the kidneys, respiratory tract and gastrointestinal tract based on animal data. Possible risk of irreversible effects (mutagenicity).

Signs/Symptoms of Exposure:

Dizziness, drowsiness, irritation and nausea.

Routes of Exposure/Entry:

Skin contact, inhalation, ingestion and eye contact.

Target Organs:

Central nervous system, eyes, gastrointestinal tract, kidneys, liver, reproductive system, respiratory tract and skin.

Medical Conditions Aggravated by Exposure:

Pre-existing sensitization, skin and/or respiratory disorders or diseases may be aggravated.

Carcinogenic Status:

The components of this mixture are not known to be listed or regulated by IARC, NTP, OSHA or ACGIH.

Reproductive Effects:

Glyoxal: Classified in Europe in Mutagenic effects have been observed in both in-vitro and in-vivo laboratory testing.

SECTION 4: FIRST AID MEASURES

If irritation or other symptoms (as noted above) occur or persist from any route of exposure, remove the affected individual from the area. See a doctor/physician or get medical attention immediately.

Eye Contact:

Immediately flush eyes with plenty of clean water for an extended time, not less than fifteen (15) minutes. Flush longer if there is any indication of residual chemical in the eye. Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll in a circular motion.

Skin Contact:

Immediately remove contaminated clothing and shoes. Wash the affected area with plenty of soap and water until no evidence of the chemical remains (at least 15 – 20 minutes). Launder clothing before reuse. If irritation develops, call a doctor/physician.

Inhalation:

If affected, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

Ingestion:

Do not induce vomiting. Rinse out the mouth with water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Notes to Physician:

No additional information.

SECTION 5: FIRE FIGHTING MEASURES

NFPA Flammability Class:	N/A.
Flash Point:	.220 ± F (104.4 ± C). Setaflash
Explosive Range:	LEL Not Applicable. UEL Not Applicable.
Notes:	No additional information.

Fire and Explosive Properties

Not flammable. Glyoxal solution may explode when heated to 392±F (200±C) in a closed container or system.

Extinguishing Media

Carbon dioxide, foam, dry chemical and water.

Fire Fighting Instructions

Use water/water spray to cool fire exposed containers. Wear self-contained breathing apparatus (SCBA) equipped with a full face piece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations.

Unusual Fire/Explosion Hazards

Closed container may rupture (due to build up in pressure) when exposed to extreme heat.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Containment Techniques

Contain spill. If spilled in an enclosed area, ventilate. Do not flush liquid into a public sewer, water system or surface waters.

Clean-up Techniques

Wear proper personal protective clothing and equipment. Do not flush liquid into public sewer, water systems, or surface waters. Soak up large spill residue and small spills with an inert absorbent. Place into labelled, closed container; store in a safe location to await disposal. Wash the spill area with soap and water. Change contaminated clothing and laundry before reuse.

Evacuation Instructions

Not applicable.

SECTION 7: HANDLING AND STORAGE

Handling

Do not breathe dust, vapour, mist or gas. Do not ingest, taste, or swallow. Use under well-ventilated conditions. Wash thoroughly after handling this product. Always wash up before eating, smoking, or using the facilities. Avoid eye and skin contact. Provide eyewash fountains and safety in the work area.

Storage

Keep the container closed when not in use. Do not store in open, unlabeled or mislabelled containers. Store cool and dry, under well-ventilated conditions. Do not reuse empty container without commercial cleaning or reconditioning.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Chemical Name:</u>	<u>ACGIH-TWA:</u>	<u>ACGIH-STEL:</u>	<u>OSHA-TWA:</u>	<u>OSHA-STEL:</u>
Water	N/E	N/E	N/E	N/E
Glyoxal	0.10 mg/m ³ (Inhalable fraction)	N/E	N/E	N/E
Ethylene Glycol	N/E	100.00 mg/m ³ ©	N/E	50.00 ppm ©

Notes: No additional information.

Engineering Controls

Always provide effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist and vapour away from workers to prevent routine inhalation. Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. (Ventilation guidelines/techniques may be found in publications such as Industrial Ventilation: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH, 45240-1634, USA).

Eye/Face Protection

Wear splash-proof goggles.

Skin Protection

Wear chemical resistant (impervious) gloves.

Respiratory Protection

In case of insufficient ventilation, wear suitable respiratory equipment. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29 CFR).

General Protection

No additional information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid.	pH	2 – 3.5.
Appearance	Clear to light yellow.	% Volatile by Weight	55% - 60%.

Odor	Characteristic.	Specific Gravity	1.27 (20 ± C).
Solubility in Water	Soluble.	VOC	<1.5%.
Evaporation Rate	Slower than n-butyl acetate.	Vapour Density	Not available.
Vapour Pressure	20.2 hPa (20 ± C).	Partition Coefficient	-1.15.

Notes: Amounts specified are typical and do not represent a specification.

SECTION 10: STABILITY AND REACTIVITY

Stability:	This product is stable.
Hazardous Polymerization:	Hazardous polymerization will not occur.
Notes:	No additional information.
Conditions to Avoid:	Avoid extreme heat and cold.
Incompatibility with Other Materials:	Avoid strong acids, bases, and oxidizing agents. Avoid nitric acid.
Hazardous Decomposition Products:	Carbon dioxide and carbon monoxide.
Additional Reactivity/Stability:	None.
Thermal Processing Emissions:	Not applicable.

SECTION 11: TOXICOLOGICAL INFORMATION

Caution must be exercised through the prudent use of protective equipment and handling procedures to minimize exposure.

Chemical Name	LC50 Inhalation	Species	LD50 Oral	Species	LD50 Skin	Species
Water	N/E		N/E		N/E	
Glyoxal	2.44 mg/L 4 hours (40% solution)	Rat/Adult	2000-5000 mg/kg (40% solution)	Rat/ Adult	>2000 mg/kg (40% solution)	Rat/Adult
Ethylene Glycol (1, 2 Ethanediol)	N/E		4000.00 mg/kg	Rat/Adult	9530 L/kg	Rabbit / Adult
Water	N/E		N/E		N/E	
Glyoxal	N/E		3300 mg/kg (40% solution)	Rat/Adult	10000 mg/kg (40% solution)	Rabbit / Adult
Ethylene Glycol (1, 2 Ethanediol)	N/E		N/E		N/E	

GLYOXAL 40% SOLUTION: Causes skin sensitization in animals and human patch studies. Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. Changes/effects to the liver, kidneys, pancreas and larynx were observed in chronic exposure animal studies. Fetotoxic effects were observed only at doses that induced maternal toxicity. Glyoxal was mutagenic in various test systems with microorganisms, mammalian cell cultures and laboratory animals.

ETHYLENE GLYCOL: In pregnant laboratory animals, the oral administration of ethylene glycol caused birth defects in the offspring. These effects were not seen when ethylene glycol was administered by dermal application or by inhalation. Continuous ingestion of a diet containing 1% or 2% ethylene glycol for two years produced liver and kidney damage and bladder stones in rats.

SECTION 12: ECOLOGICAL INFORMATION

GLYOXAL 40% SOLUTION: Freshwater Fish Toxicity: 96 hour LC50 is >460 - <680 mg/L.
Freshwater Invertebrate Toxicity: 48 hour EC50 is 404 mg/L.
Algal Toxicity: 72 hour EC50 is >100 mg/L.
Microorganism Toxicity: 3 hour EC50 is 102 mg/L.
The product is readily biodegradable and is not expected to bio-concentrate.

ETHYLENE GLYCOL: Practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100mg/L in most sensitive species). Bio-concentration potential is low. Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD 28 / ThOD greater than 40%).

SECTION 13: DISPOSAL INFORMATION

For waste disposal purposes, a liquid with a pH between 2.1 and 12.4 is not defined or designated as hazardous by current provisions of the Federal (EPA) Resource Conservation and Recovery Act (RCRA, 40CFR261). Federal, State and Local regulations where the waste material is generated, treated, and/or disposed of must be examined to verify the appropriate waste classification. Incinerate waste product when in liquid form (i.e: as supplied) in a properly permitted (approved) incineration facility in accordance with Federal, State and Local regulations. Liquids cannot be disposed of in a landfill.

Chemical Name:	-lbs-:	-kgs-:
Ethylene Glycol (1, 2 Ethanedioil)	5000.00	2272.73

SECTION 14: TRANSPORTATION INFORMATION

UN/NA Number:	N/A	TDG Class:	N/A
Hazard Class:	N/A	Name of Materials:	Not regulated
IMGD:	N/A	ICAO/IATA Class:	N/A
Packing:	N/A		

Notes: No additional information.

SECTION 15: REGULATORY INFORMATION

This SDS had been prepared in accordance with the hazard criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S Toxic Substance Control Act: All components of this product are either listed on the U.S Toxic Substance Control Act (TSCA) inventory of chemicals or are otherwise compliant with TSCA regulations.

U.S CERCLA / SARA: SARA Title III Section 312 Hazard Category (40 CFR 311/312). Immediate health hazard. Chronic health hazard.

SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and 40 CFR 372:

Chemical Name:	CAS Number:
Ethylene Glycol (1, 2 Ethanedioil)	00000107-21-1

California Proposition 65:

WARNING: The following ingredients present in the product are known to the state of California to cause cancer.

Chemical Name:	CAS Number:
Formaldehyde	00050-00-0

WARNING: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

None known to be present or none in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, Page 31159 ff, 6 June 1997.

The chemical identity of some or all components present is confidential business information (trade secret) and is being withheld as permitted by 29CFR 1910.1200 (i).

Canadian Domestic Substances List (DSL): All components in this product are on the Canadian Domestic Substance List (DSL) or are exempt from listing.

Canadian Ingredient Disclosure List: The following components are on the Canadian Ingredient Disclosure List (WHMIS):
Glyoxal
Ethylene Glycol (1, 2 Ethanediol)

Canadian WHMIS Class: D1B, D2A, D2B.

Notes: No additional information.

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

SECTION 16: OTHER INFORMATION

-HMIS Rating-

Health |2|

Flammability |1|

Reactivity |0|

Personal

Protection |X|

Key: 0= Insignificant; 1= Slight; 2= Moderate; 3= High; 4= Extreme

-NFPA Rating-

Health |2|

Flammability |1|

Reactivity |0|

Hazardous Materials Identification System (HMIS), National Paint and Coating Assn. Rating applies to products “as packaged” (i.e: ambient temperature). Ratings are based upon HMIS Rating Manual 1984. Values do not reflect HMIS III. National Fire Protection Association (NFPA) rating identifies the severity of hazards of materials during a fire emergency (i.e: “on fire”).

Legend:

<p>*: ACGIH: A1: A2: A3: CAS No: IARC: Group 1: Group 2A: Group 2B: Group 3: MSHA: NIOSH: NTP: N/A: N/E: OSHA: PEL: PNOC: RTK: STEL: TLV: C: S: WHMIS:</p>	<p>Trademark owned by Emerald Performance Materials, LLC. American Conference of Governmental Industrial Hygienists. Confirmed human carcinogen. Suspected human carcinogen. Animal carcinogen. Chemical Abstract Service Registry Number. International Agency for Research on Cancer. Carcinogenic to humans. Probably carcinogenic to humans. Possibly carcinogenic to humans. Unclassified as a carcinogen to humans. Mine Safety and Health Administration. National Institute for Occupational Safety and Health. National Toxicology Program. Not applicable. Not established. Occupational Safety and Health Administration. Permissible Exposure Limit. Particulates Not Otherwise Classified. Right to know. Short Term Exposure Limit (15 min time weighted average). Threshold Limit Value. Ceiling limit. Skin notation refers to the potential significant contribution to the overall exposure by the cutaneous route including mucous membranes and the yes and by direct skin contact with the substance. Canadian Workplace Hazardous Materials Information System.</p>
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