



MATERIAL SAFETY DATA SHEET

Industrial Formulators, Inc. 3824 William Street Burnaby, B.C. V5C 3H9

SECTION I - PRODUCT IDENTIFICATION

Product Name: **S-1 Sealer Part A**
Previous Revision: August 18, 2001
Product Type: Resin/Solvent Mixture
24-Hr. Emergency Phone:
CANUTEC: 1-613-996-6666

WHMIS Classification: D2B
Date of Prep: May 1, 2003
Reason Revised: N/A
Information: (604) 294-5723
Prepared By: J. Bartlett

HMIS Ratings:
Health 3
Fire 3
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Diglycidyl Ether of Bisphenol A (DGEBPA)	40-60%	25068-38-6	none established	none established
Xylene	25-40%	1330-20-7	50ppm	50ppm
Methyl Isobutyl Ketone	10-30%	108-10-1	50ppm	50ppm

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: 281-400°F
Vapor Density: Heavier than Air
Evaporation Rate: N/A
Appearance and Odour: Pale liquid with characteristic odour.

Specific Gravity: 1.01
Material V.O.C.: 500 g/l
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: 60°F
Method: Tag Closed Cup
Flammable Limits in Air By Volume % - Lower: 0.9 Upper: 9.0
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Special Firefighting Procedures: When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire exposed containers. Toxic fumes may be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable.
Incompatibility: Strong oxidizing agents, Lewis and mineral acids.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Oxides of carbon, aldehydes, acids

Conditions to Avoid: Avoid extreme heat, sources of ignition.

SECTION VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Acute: Nausea, dizziness. Odor may irritate nose, throat and respiratory tract of some persons.
Chronic: Skin sensitization or brain damage may result from repeated or prolonged overexposure to this product.
Carcinogenicity: IARC: No NTP: No OSHA: No

S-1 Sealer Part A (continued)

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush with water for 15 minutes holding eyelids open. Seek medical attention.

Skin: Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) can not be decontaminated and should be destroyed.

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

Ingestion: DO NOT INDUCE VOMITING. Product is an aspiration hazard. Do not give liquids if victim is unconscious or very drowsy.

Medical Conditions Generally Aggravated by Exposure: Existing respiratory conditions could be aggravated by repeated or prolonged exposure to vapors from this product.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

Waste Disposal Method: Place in an appropriate disposal facility in compliance with federal, state, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: In the absence of proper environmental control a NIOSH-approved respirator is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye Protection: Splash proof goggles or safety spectacles with side shields are recommended.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - TRANSPORTATION REQUIREMENTS

Transportation of Dangerous Goods Classification: Flammable Liquid

Consumer warnings: Danger: Flammable, skin sensitizer.

UN Proper Shipping Name: Paint Related Material, Class 3, UN1263, PG II

Other Requirements (U.S. EPA):

This product contains the following toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA) and of 40 CFR 372:

Xylene	25-40%	1330-20-7	50ppm	50ppm
Methyl Isobutyl Ketone	10-30%	108-10-1	50ppm	50ppm

The information contained herein is based on the data available to us and is believed to be correct. However, Industrial Formulators, Inc. makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. Industrial Formulators assumes no responsibility for injury from the use of the product described herein.



MATERIAL SAFETY DATA SHEET

Industrial Formulators, Inc. 3824 William Street Burnaby, B.C. V5C 3H9

SECTION I - PRODUCT IDENTIFICATION

Product Name: **S-1 Sealer Part B**
Previous Revision: August 18, 2001
Product Type: Hardener/Solvent Mixture
24-Hr. Emergency Phone:
CANUTEC: 1-613-996-6666

WHMIS Classification: D2B
Date of Prep: May 1, 2003
Reason Revised: N/A
Information: (604) 294-5723
Prepared By: J. Bartlett

HMIS Ratings:
Health 3
Fire 3
Reactivity 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	AMOUNT	CAS NUMBER	OSHA PEL	ACGIH TLV
Polyamide Resin	20-40%	68410-23-1	none established	none established
Xylene	50-70%	1330-20-7	50ppm	50ppm
n-Butanol	10-20%	71-36-3	50ppm	50ppm

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Range: 281-400°F
Vapor Density: Heavier than Air
Evaporation Rate: N/A
Appearance and Odour: Amber, thin liquid with characteristic odour.

Specific Gravity: 0.90
Material V.O.C.: 500 g/l
Water Solubility: Negligible

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: > 60°F
Flammable Limits in Air By Volume % - Lower: 0.9 Upper: 9.0
Extinguishing Media: Foam, Carbon Dioxide, Dry Chemical, Water Fog

Method: Pensky-Martens Closed Cup

Special Firefighting Procedures: When fighting chemical fires wear full protective equipment with self-contained breathing apparatus. Water spray may be used to cool fire exposed containers. Toxic fumes may be evolved when this substance is burned.

SECTION V - REACTIVITY DATA

Stability: Stable.
Incompatibility: Strong oxidizing agents, Lewis and mineral acids.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Oxides of carbon, aldehydes, acids

Conditions to Avoid: Avoid extreme heat, sources of ignition.

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY: Eye contact, ingestion, skin contact.

EFFECTS OF OVEREXPOSURE:

Acute: Nausea, dizziness. Odor may irritate nose, throat and respiratory tract of some persons.

Chronic: Skin sensitization or brain damage may result from repeated or prolonged overexposure to this product.

Carcinogenicity: IARC: No NTP: No OSHA: No

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush with water for 15 minutes holding eyelids open. Seek medical attention.

S-1 Sealer Part B (continued)

Skin: Remove contaminated clothing and shoes and wipe excess off skin. Flush skin with water. Follow by washing in soap and water. If irritation occurs, seek medical attention. Do not reuse clothing until cleaned. Contaminated leather articles (shoes) can not be decontaminated and should be destroyed.

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

Ingestion: DO NOT INDUCE VOMITING. Product is an aspiration hazard. Do not give liquids if victim is unconscious or very drowsy.

Medical Conditions Generally Aggravated by Exposure: Existing respiratory conditions could be aggravated by repeated or prolonged exposure to vapors from this product.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

If Material is Spilled: Avoid contact with material. Persons not wearing appropriate protective equipment should leave the area of the spill until cleanup is complete. Stop spill at source, dike area to prevent spreading, pump liquid to salvage tank or drum. Remaining liquid may be taken up on clay, diatomaceous earth, sawdust, or other absorbent, and shoveled into disposal containers.

Waste Disposal Method: Place in an appropriate disposal facility in compliance with federal, provincial, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: In the absence of proper environmental control a NIOSH-approved respirator for organic vapours is required. For emergencies, a self-contained breathing apparatus or full-faced respirator is recommended.

Ventilation: Provide adequate ventilation in work areas. Confine material in sealed containers when not in use.

Hand Protection: Always wear impervious gloves, neoprene, vinyl or rubber.

Eye Protection: Splash proof goggles or safety spectacles with side shields are recommended.

Other Protective Equipment: Wear clean, body-covering clothing to avoid skin contact.

SECTION IX - TRANSPORTATION REQUIREMENTS

Transportation of Dangerous Goods Classification: Flammable Liquid

Consumer warnings: Danger: Flammable

UN Proper Shipping Name: Paint Related Material, Class 3, UN1263, PG II

Other Requirements(US EPA):

This product contains the following toxic chemicals subject to the report requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA) and of 40 CFR 372:

Xylene	50-70%	1330-20-7	50ppm	50ppm
n-Butanol	10-20%	71-36-3	50ppm	50ppm

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