TEAM® Industrial Services

SAFETY DATA SHEET

1. Identification

Product identifier **SEALANT 1X**

Other means of identification

Product code 800-0023

Recommended use Industrial Leak Sealant.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name Team Industrial Services, Inc.

Address 200 Hermann Drive, Alvin, Texas 77511

Telephone Not available.

E-mail Not available.

Emergency phone number CHEMTREC - 24 HOURS: 800-424-9300 (USA)
International: +1 703-527-3887 (Collect)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Sensitization, skin	Category 1
Carcinogenicity (inhalation)	Category 1A

Environmental hazards

Hazardous to the aquatic environment, acute hazard	Category 3
Hazardous to the aquatic environment, long-term hazard	Category 3

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer by inhalation. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wash thoroughly after handling. Avoid release to the environment.

Response If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Aluminum hydroxide	21645-51-2	25-50
Phenol, polymer with formaldehyde	9003-35-4	10-25
Quartz	14808-60-7	10-25
Graphite	7782-42-5	5-10
Carbon	7440-44-0	1-5
Ethanol	64-17-5	1-5
Refractories, Fibers, Aluminosilicate	142844-00-6	1-5
m-Cresol	108-39-4	1-5
p-Cresol	106-44-5	1-5
2,6-Xylenol	576-26-1	<1
Formaldehyde	50-00-0	<1
Hexamethylenetetramine	100-97-0	<1
Methanol	67-56-1	<1
O-Ethylphenol	90-00-6	<1
Phenol	108-95-2	< 1

Composition comments All concentrations are in percent by weight.

4. First-aid measures

Inhalation Move into fresh air and keep at rest. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
When cured: Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Skin contact Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion Rinse mouth thoroughly with water and give large amounts of milk or water, if person is conscious. Only induce vomiting at the instruction of medical personnel. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Obtain medical attention and take along these instructions.

Most important symptoms/effects, acute and delayed Symptoms include redness, itching and pain. May cause permanent damage if eye is not immediately irrigated. Sensitization. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed Treat symptomatically. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

General information IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Extinguish with carbon dioxide or dry powder.
Unsuitable extinguishing media	No restrictions known.
Specific hazards arising from the chemical	Solvent vapors may form explosive mixtures with air. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Fire fighting equipment/instructions	Ventilate closed spaces before entering them. Containers should be cooled with water to prevent vapor pressure build up. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Evacuate area and fight fire from a safe distance. Stop leak if you can do so without risk. Move containers from fire area if you can do it without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Will burn if involved in a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Ensure adequate ventilation. Do not get in eyes. Avoid inhalation of vapors or mists. Avoid contact with skin. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean contaminated surface thoroughly. Sweep up or vacuum up spillage and collect in suitable container for disposal. Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in Section 13 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Environmental manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling	Should be handled in closed systems, if possible. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Persons susceptible for allergic reactions should not handle this product. Do not get in eyes. Avoid inhalation of vapors or mists. Avoid contact with skin. Do not smoke and do not spray near a naked flame or other sources of ignition. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Use personal protective equipment as required.
Conditions for safe storage, including any incompatibilities	Keep away from heat, spark, open flames and other sources of ignition. Keep away from sources of ignition - No smoking. Store in a cool, dry, well-ventilated place. Store in a closed container away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Formaldehyde (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3	
		1000 ppm	
Graphite (CAS 7782-42-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
m-Cresol (CAS 108-39-4)	PEL	22 mg/m3	
		5 ppm	
p-Cresol (CAS 106-44-5)	PEL	22 mg/m3	
		5 ppm	

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Carbon (CAS 7440-44-0)	TWA	15 mppcf	
Graphite (CAS 7782-42-5)	TWA	15 mppcf	
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum hydroxide (CAS 21645-51-2)	TWA	1 mg/m3	Respirable fraction.
Ethanol (CAS 64-17-5)	STEL	1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm	
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
m-Cresol (CAS 108-39-4)	TWA	20 mg/m3	Inhalable fraction and vapor.
p-Cresol (CAS 106-44-5)	TWA	20 mg/m3	Inhalable fraction and vapor.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Carbon (CAS 7440-44-0)	TWA	2.5 mg/m3	Respirable.
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3	
		1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	0.1 ppm	
	TWA	0.016 ppm	
Graphite (CAS 7782-42-5)	TWA	2.5 mg/m3	Respirable.
m-Cresol (CAS 108-39-4)	TWA	10 mg/m3	
		2.3 ppm	
p-Cresol (CAS 106-44-5)	TWA	10 mg/m3	
		2.3 ppm	
Quartz (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	3 fibers/cm3	Fiber.
		3 fibers/cm3	Dust.
		5 mg/m3	fibers, total dust
		5 mg/m3	Fiber, total

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

m-Cresol (CAS 108-39-4)	Can be absorbed through the skin.
p-Cresol (CAS 106-44-5)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

m-Cresol (CAS 108-39-4)	Skin designation applies.
p-Cresol (CAS 106-44-5)	Skin designation applies.

US - Tennessee OELs: Skin designation

m-Cresol (CAS 108-39-4)	Can be absorbed through the skin.
p-Cresol (CAS 106-44-5)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

m-Cresol (CAS 108-39-4)	Can be absorbed through the skin.
p-Cresol (CAS 106-44-5)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

m-Cresol (CAS 108-39-4)	Can be absorbed through the skin.
p-Cresol (CAS 106-44-5)	Can be absorbed through the skin.

Appropriate engineering controls Mix and prepare in a place with efficient exhaust ventilation. Observe occupational exposure limits and minimize the risk of exposure. An eye wash and safety shower must be available in the immediate work area.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear suitable gloves. Butyl rubber gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Other Wear appropriate clothing to prevent possibility of skin contact.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe any medical surveillance requirements.

9. Physical and chemical properties

Appearance Black pliable semi-solid with phenolic odor.

Physical state Liquid.

Form Pliable semi-solid.

Color Black.

Odor Phenolic.

Odor threshold 0.003 - 5 ppm (m-Cresol)

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Slightly.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature > 1200 °F (> 648.9 °C) When cured

Viscosity Not available.

10. Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Flames and sparks. Avoid static discharge and uncontrolled exposure to high temperatures. Contact with incompatible materials.
Incompatible materials	Strong oxidizers, strong acids, and strong bases. Strong reducing agents.
Hazardous decomposition products	Aluminum oxides. Carbon oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Inhalation	In high concentrations, vapors may be irritating to the respiratory system. May cause lung edema. When cured: Vapors, spray or mists may be very irritating or corrosive to the respiratory system.
Skin contact	Causes skin irritation. May cause an allergic skin reaction. The product contains components which may penetrate skin.
Eye contact	Causes severe eye damage.
Ingestion	May be harmful if swallowed. May cause central nervous system depression. May cause blood damage.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms include redness, itching and pain. May cause permanent damage if eye is not immediately irrigated. Sensitization. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure. Prolonged exposure may cause chronic effects.

Information on toxicological effects

Acute toxicity May be harmful if swallowed.

Components	Species	Test Results
Aluminum hydroxide (CAS 21645-51-2)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg
Carbon (CAS 7440-44-0)		
Acute		
Oral		
LD50	Rat	> 10000 mg/kg
Ethanol (CAS 64-17-5)		
Acute		
Inhalation		
LC50	Mouse	39 g/m3, 4 Hours
Oral		
LD50	Rat	7000 - 11000 mg/kg
Formaldehyde (CAS 50-00-0)		
Acute		
Inhalation		
LC50	Rat	0.48 mg/l, 4 Hours
Oral		
LD50	Rat	100 mg/kg
m-Cresol (CAS 108-39-4)		
Acute		
Dermal		
LD50	Rabbit	620 mg/kg
Oral		
LD50	Rat	242 mg/kg

Components	Species	Test Results
p-Cresol (CAS 106-44-5)		
Acute		
Dermal		
LD50	Rabbit	300 mg/kg
Oral		
LD50	Rat	207 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

ACGIH sensitization

Formaldehyde (CAS 50-00-0)	Dermal sensitization Respiratory sensitization

Respiratory sensitization No data available.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Not classified. Contains a component that is suspected of causing genetic defects.

Carcinogenicity May cause cancer by inhalation.

IARC Monographs. Overall Evaluation of Carcinogenicity

Formaldehyde (CAS 50-00-0)	1 Carcinogenic to humans.
Quartz (CAS 14808-60-7)	1 Carcinogenic to humans.

NTP Report on Carcinogens

Formaldehyde (CAS 50-00-0)	Known To Be Human Carcinogen.
Quartz (CAS 14808-60-7)	Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Formaldehyde (CAS 50-00-0)	Cancer

Reproductive toxicity No data available.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard Based on available data, the classification criteria are not met.

Chronic effects Danger of serious damage to health by prolonged exposure. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. When cured: Phenolic resin releases formaldehyde and formaldehyde has carcinogenic potential and is a known skin and respiratory sensitizer.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
Ethanol (CAS 64-17-5)			
Aquatic			
Fish	LC50	Pimephales promelas	13480 mg/l, 96 hours
Formaldehyde (CAS 50-00-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	4.3 - 7.8 mg/l, 48 hours
Fish	LC50	Striped bass (Morone saxatilis)	10.302 - 16.743 mg/l, 96 hours
m-Cresol (CAS 108-39-4)			
Aquatic			
Crustacea	EC50	Scud (Gammarus fasciatus)	7 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.9 mg/l, 96 hours

Components		Species	Test Results
p-Cresol (CAS 106-44-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	7.7 mg/l, 48 hours
Fish	LC50	Fish (Lepidocephalichthyes guntea)	6.15 - 7.96 mg/l, 96 hours

Persistence and degradability No data available.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Formaldehyde (CAS 50-00-0)	0.35
m-Cresol (CAS 108-39-4)	1.96
p-Cresol (CAS 106-44-5)	1.94

Mobility in soil Expected to be slightly to moderately mobile in soil.

Mobility in general The product is insoluble or slightly soluble in water.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Dispose of this material and its container to hazardous or special waste collection point. Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Hazardous waste code D026: Waste Cresol
When cured: Not regulated.

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Formaldehyde (CAS 50-00-0)	Cancer Skin sensitization Respiratory sensitization Eye irritation Skin irritation respiratory tract irritation Acute toxicity Flammability

CERCLA Hazardous Substance List (40 CFR 302.4)

Formaldehyde (CAS 50-00-0)	LISTED
m-Cresol (CAS 108-39-4)	LISTED
p-Cresol (CAS 106-44-5)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Formaldehyde	50-00-0	100	500		

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
m-Cresol	108-39-4	1-5
p-Cresol	106-44-5	1-5
Formaldehyde	50-00-0	<1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Formaldehyde (CAS 50-00-0)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Formaldehyde (CAS 50-00-0)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Carbon (CAS 7440-44-0)
Ethanol (CAS 64-17-5)
Formaldehyde (CAS 50-00-0)
Graphite (CAS 7782-42-5)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)
Quartz (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act

Carbon (CAS 7440-44-0)
Ethanol (CAS 64-17-5)
Formaldehyde (CAS 50-00-0)
Graphite (CAS 7782-42-5)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)
Quartz (CAS 14808-60-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Carbon (CAS 7440-44-0)
Ethanol (CAS 64-17-5)
Formaldehyde (CAS 50-00-0)
Graphite (CAS 7782-42-5)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)
Quartz (CAS 14808-60-7)

US. Rhode Island RTK

Formaldehyde (CAS 50-00-0)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)

US. California Proposition 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Formaldehyde (CAS 50-00-0)
Methanol (CAS 67-56-1)
Quartz (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	26-May-2015
Revision date	08-February-2016
Version #	02
Further information	HMIS® is a registered trade and service mark of the NPCA. J - Goggles, Gloves, Apron, Dust, Vapor Respirator
HMIS® ratings	Health: 3* Flammability: 1 Physical hazard: 0 Personal protection: J
References	ACGIH EPA: Acquire database NLM: Hazardous Substances Data Base US. IARC Monographs on Occupational Exposures to Chemical Agents HSDB® - Hazardous Substances Data Bank IARC Monographs. Overall Evaluation of Carcinogenicity National Toxicology Program (NTP) Report on Carcinogens ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
Disclaimer	Team Industrial Services, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.
This SDS contains revisions in the following section(s):	1, 2, 3, 4, 6, 7, 8, 11, 12, 13, 14, 15, 16.