

TEAM® Industrial Services
SAFETY DATA SHEET

1. Identification

Product identifier SEALANT 1X-SF

Other means of identification

Product code 800-0035

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

Acute toxicity, oral	Category 4
Acute toxicity, dermal	Category 3
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Sensitization, respiratory	Category 1
Sensitization, skin	Category 1
Germ cell mutagenicity	Category 2
Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Not available.

Precautionary statement

Prevention Wear protective gloves/protective clothing/eye protection/face protection.

Response Not available.

Storage Store away from incompatible materials.

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

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

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Aluminum oxide	1344-28-1	30 - < 40

Phenol, polymer with formaldehyde	9003-35-4	5 - < 10
Graphite	7782-42-5	5 - < 10
Ethanol	64-17-5	3 - < 5
m-Cresol	108-39-4	3 - < 5
p-Cresol	106-44-5	3 - < 5
Phenol	108-95-2	< 1
Aluminum hydroxide	21645-51-2	30 - < 40
Carbon	7440-44-0	3 - < 5
Formaldehyde	50-00-0	< 1
Hexamethylenetetramine	100-97-0	< 1

Composition comments

All concentrations are in percent by weight.
Refractories, Fibers, Aluminosilicate Note R: The classification as a carcinogen does not apply according to Directive 67/548/EEC as it can be shown that fibers have a length weighted geometric mean diameter less two standard geometric errors greater than 6 micrometers.

4. First-aid measures

Inhalation

If breathing stops, provide artificial respiration. Get medical attention immediately.

Skin contact

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.

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. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Unconsciousness. Coughing. Shortness of breath. Irritation of nose and throat may occur. Symptoms include itching, burning, redness and tearing.

Indication of immediate medical attention and special treatment needed

Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

General information

Chemical burns must be treated by a physician.

5. Fire-fighting measures

Suitable extinguishing media

Extinguish with alcohol-resistant foam, 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

Combustible liquid. Heated material: Vapors may travel to a source of ignition and flash back. If heated, volume and pressure increases strongly, resulting in explosion of container.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate closed spaces before entering them. Avoid inhalation of vapors and contact with skin and eyes. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Eliminate all ignition sources. Stop leak if you can do so without risk. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated surface thoroughly. 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**

Avoid inhalation of vapors and contact with skin and eyes. The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Ground container and transfer equipment to eliminate static electric sparks. Use non-sparking tools and explosion-proof equipment. Use personal protective equipment as required. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Follow rules for combustible liquids. 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****U.S. - OSHA**

Components	Type	Value
Carbon (CAS 7440-44-0)	TWA	15 mppcf

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
Aluminum oxide (CAS 1344-28-1)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Ethanol (CAS 64-17-5)	PEL	1900 mg/m ³	
		1000 ppm	
Graphite (CAS 7782-42-5)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
m-Cresol (CAS 108-39-4)	PEL	22 mg/m ³	
		5 ppm	
p-Cresol (CAS 106-44-5)	PEL	22 mg/m ³	
		5 ppm	

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

Components	Type	Value	Form
Carbon (CAS 7440-44-0)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Graphite (CAS 7782-42-5)	TWA	15 mppcf	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum hydroxide (CAS 21645-51-2)	TWA	1 mg/m ³	Respirable fraction.
Aluminum oxide (CAS 1344-28-1)	TWA	1 mg/m ³	Respirable fraction.
Carbon (CAS 7440-44-0)	TWA	2 mg/m ³	Respirable fraction.
Ethanol (CAS 64-17-5)	STEL	1000 ppm	
Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
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.

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	

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

Provide adequate 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. Use explosion-proof equipment.

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. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing to prevent any possibility of skin contact.

Respiratory protection

In case of inadequate ventilation use suitable respirator. 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. 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.

9. Physical and chemical properties

Appearance	Black pliable semi-solid with phenolic odor.
Physical state	Solid.
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 available.
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)	No data available.
Auto-ignition temperature	Not available.
Decomposition temperature	> 1200 °F (> 648.9 °C) When cured
Viscosity	Not available.

10. Stability and reactivity

Reactivity	Not available.
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	Harmful if inhaled. When cured: Elevated temperatures or mechanical action may form dust and fumes which may be irritating to the respiratory tract.
Skin contact	Harmful in contact with skin. Causes skin irritation.
Eye contact	May cause eye burns. Risk of serious damage to eyes.
Ingestion	May cause discomfort if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Corrosive. Prolonged contact causes serious eye and tissue damage. Prolonged or repeated inhalation/ingestion may cause central nervous system, blood, lung, liver or kidney damage.

Information on toxicological effects

Acute toxicity May cause skin, eye and digestive tract burns. May cause severe respiratory tract irritation. Harmful if swallowed or absorbed through skin. Contains material which may cause lung, liver, kidney, heart, blood and central nervous system damage. May cause discomfort if swallowed.

Components	Species	Test Results
Aluminum hydroxide (CAS 21645-51-2)		
Acute		
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Carbon (CAS 7440-44-0)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 2000 mg/m3, 4 hours
Ethanol (CAS 64-17-5)		
Acute		
<i>Inhalation</i>		
LC50	Rat	30000 mg/m3
Formaldehyde (CAS 50-00-0)		
Acute		
<i>Inhalation</i>		
LC50	Rat	0.82 mg/l, 0.5 Hours
<i>Oral</i>		
LD50	Rat	100 mg/kg
m-Cresol (CAS 108-39-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	620 mg/kg
<i>Oral</i>		
LD50	Rat	242 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	May cause eye burns. Risk of serious damage to eyes.	
Respiratory or skin sensitization		
ACGIH sensitization		
Formaldehyde (CAS 50-00-0)	Sensitizer.	
Respiratory sensitization	May cause sensitization by inhalation.	
Skin sensitization	Not a skin sensitizer.	
Germ cell mutagenicity	Contains a substance which may have a mutagenic effect.	
Carcinogenicity	Not classified.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Formaldehyde (CAS 50-00-0)	1 Carcinogenic to humans.	
NTP Report on Carcinogens		
Formaldehyde (CAS 50-00-0)	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	Not available.	
Specific target organ toxicity - repeated exposure	Not available.	
Aspiration hazard	Not available.	

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

Further information Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

12. Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Formaldehyde (CAS 50-00-0)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia pulex</i>)	4.3 - 7.8 mg/l, 48 hours
Fish	LC50	Striped bass (<i>Morone saxatilis</i>)	10.302 - 16.743 mg/l, 96 hours
Hexamethylenetetramine (CAS 100-97-0)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	29868 - 43390 mg/l, 48 hours
Fish	LC50	Bleak (<i>Alburnus alburnus</i>)	> 10000 mg/l, 96 hours
m-Cresol (CAS 108-39-4)			
Aquatic			
Crustacea	EC50	Scud (<i>Gammarus fasciatus</i>)	7 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	8.9 mg/l, 96 hours
p-Cresol (CAS 106-44-5)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	7.7 mg/l, 48 hours
Fish	LC50	Fish (<i>Lepidocephalichthyes guntea</i>)	6.15 - 7.96 mg/l, 96 hours

Persistence and degradability No data available.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Ethanol (CAS 64-17-5)	-0.31
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 Not available.

Mobility in general The product is insoluble or slightly soluble in water. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

Other adverse effects The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions 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. Dispose of this material and its container to hazardous or special waste collection point.

Hazardous waste code D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]

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 available.

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)

Ethanol (CAS 64-17-5)	LISTED
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	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
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Formaldehyde	50-00-0	100	500 lbs		
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SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Aluminum oxide	1344-28-1	30 - < 40
m-Cresol	108-39-4	3 - < 5
p-Cresol	106-44-5	3 - < 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

Aluminum oxide (CAS 1344-28-1)
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)

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

Aluminum oxide (CAS 1344-28-1)
Carbon (CAS 7440-44-0)
Ethanol (CAS 64-17-5)
Formaldehyde (CAS 50-00-0)
Graphite (CAS 7782-42-5)
Hexamethylenetetramine (CAS 100-97-0)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)

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

Aluminum oxide (CAS 1344-28-1)
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)

US. Rhode Island RTK

Aluminum oxide (CAS 1344-28-1)
Formaldehyde (CAS 50-00-0)
m-Cresol (CAS 108-39-4)
p-Cresol (CAS 106-44-5)

US. California Proposition 65

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

Formaldehyde (CAS 50-00-0)
Methanol (CAS 67-56-1)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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	17-February-2015
Revision date	-
Version #	01
Further information	HMIS® is a registered trade and service mark of the NPCA. I - Safety Glasses, Gloves, Dust, Vapor Respirator

HMIS® ratings

Health: 3*
Flammability: 0
Physical hazard: 0
Personal protection: I

NFPA ratings**List of abbreviations****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

The information in the sheet was written based on the best knowledge and experience currently available.