TEAM® Industrial Services

SAFETY DATA SHEET

1. Identification

Product identifier **SEALANT 18X**

Other means of identification

Product code 800-0029

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	Flammable liquids	Category 4
Health hazards	Skin corrosion/irritation	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 2 (Central nervous system)
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 Warning

Hazard statement Combustible liquid. Suspected of damaging the unborn child. May cause damage to organs (Central nervous system) through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe vapor/spray. Wear protective gloves/eye protection/face protection. Avoid release to the environment.

Response In case of fire: Use appropriate media for extinction.

Storage Store in a well-ventilated place. Keep cool. Store locked up.

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	%
Graphite	7782-42-5	10-25
Quartz (SiO2)	14808-60-7	10-25
Refractories, Fibers, Aluminosilicate	142844-00-6	5-10
Carbon fiber	7440-44-0	<5
Dicumyl peroxide	80-43-3	<5
Toluene	108-88-3	<5

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

Move injured person into fresh air and keep person calm under observation. Get medical attention if any discomfort occurs.

Skin contact

Remove contaminated clothing and shoes. Flush thoroughly with water for at least 15 minutes. If irritation occurs, get medical assistance.

Eye contact

Flush thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops or persists.

Ingestion

Rinse mouth thoroughly with water and give large amounts of milk or water, if person is conscious. Never give anything by mouth to a victim who is unconscious or is having convulsions. 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

Coughing. Irritation of eyes and mucous membranes. Symptoms include itching, burning, redness and tearing.

General information

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 foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media

No restrictions known.

Specific hazards arising from the chemical

By heating and fire, irritating vapors/gases 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

In the event of fire, cool tanks with water spray. 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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ventilate closed spaces before entering. Avoid inhalation of vapors and contact with skin and eyes. Wear appropriate protective equipment and clothing during clean-up. See Section 8 of the SDS for Personal Protective Equipment.

Methods and materials for containment and cleaning up

Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. After removal flush contaminated area thoroughly with water. This material and its container must be disposed of as hazardous waste.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. Handling and storage

Precautions for safe handling

Pregnant or breastfeeding women must not handle this product. Avoid inhalation of vapors and contact with skin and eyes. Use only with adequate ventilation. Wear approved safety goggles. Wear protective gloves and appropriate clothing to prevent skin contact. Avoid generation and spreading of dust. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feedingstuffs. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

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

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

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

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

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Graphite (CAS 7782-42-5)	TWA	15 mppcf	
Quartz (SiO2) (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
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m3	Respirable fraction.
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Toluene (CAS 108-88-3)	TWA	20 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	2.5 mg/m3	Respirable.
Graphite (CAS 7782-42-5)	TWA	2.5 mg/m3	Respirable.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	3 fibers/cm3	Dust.
		3 fibers/cm3	Fiber.
		5 mg/m3	fibers, total dust
		5 mg/m3	Fiber, total
Toluene (CAS 108-88-3)	STEL	560 mg/m3	
		150 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
	TWA	375 mg/m3	
		100 ppm	

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

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines No exposure standards allocated.

US - California OELs: Skin designation

Toluene (CAS 108-88-3) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3) Skin designation applies.

Appropriate engineering controls Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear approved safety goggles.

Skin protection

Hand protection Wear protective gloves. 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. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Thermal hazards When material is heated, wear gloves to protect against thermal burns.

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. Private clothes and working clothes should be kept separately. Observe any medical surveillance requirements.

9. Physical and chemical properties

Appearance Black pliable semi-solid with solvent odor.

Physical state Liquid.

Form Pliable semi-solid.

Color Black.

Odor Solvent.

Odor threshold 0.5 - 23 ppm (Toluene).

pH Not applicable.

Melting point/freezing point Not available.

Initial boiling point and boiling range 230 °F (110 °C)

Flash point 198.0 °F (92.2 °C) Closed Cup

Evaporation rate 1 (Butyl acetate=1)

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	6 mm Hg @ 68 F
Vapor density	Not available.
Relative density	0.9
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	896 °F (480 °C) (Toluene)
Decomposition temperature	Not available.
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.
Incompatible materials	Strong oxidizing agents. Strong acids.
Hazardous decomposition products	Carbon oxides. Silicon oxides. Aluminum oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	High concentrations: Vapors may cause drowsiness and dizziness.
Skin contact	May cause skin irritation. Prolonged or repeated contact may dry skin and cause dermatitis. The product contains organic solvents which may be absorbed into the body by skin contact and cause permanent damage to the nervous system, including the brain.
Eye contact	May cause eye irritation.
Ingestion	May cause discomfort if swallowed. Components of the product may be absorbed into the body by ingestion.
Symptoms related to the physical, chemical and toxicological characteristics	Coughing. Irritation of eyes and mucous membranes. Symptoms include itching, burning, redness and tearing. Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure.

Information on toxicological effects

Acute toxicity May cause mild central nervous system effects.

Components	Species	Test Results
Carbon fiber (CAS 7440-44-0)		
Acute		
Inhalation		
LC50	Rat	> 2000 mg/m3, 4 hours
Dicumyl peroxide (CAS 80-43-3)		
Acute		
Oral		
LD50	Rat	4100 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	14.1 ml/kg
Inhalation		
LC50	Rat	49000 mg/m³, 4 Hours

Components	Species	Test Results
Oral		
LD50	Rat	636 mg/kg

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation May cause eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization May cause eczema-like skin disorders (dermatitis).

Germ cell mutagenicity No data available.

Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (SiO2) (CAS 14808-60-7)	1 Carcinogenic to humans.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens

Quartz (SiO2) (CAS 14808-60-7)	Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure May cause damage to organs (Central nervous system) through prolonged or repeated exposure.

Aspiration hazard Not classified.

Chronic effects Danger of serious damage to health by prolonged exposure. Organic solvents may be absorbed into the body by inhalation and ingestion and cause permanent damage to the nervous system, including the brain. May cause eczema-like skin disorders (dermatitis).

Further information May aggravate pre-existing disorders of the skin. Organic solvents may be absorbed into the body by inhalation and ingestion and cause permanent damage to the nervous system, including the brain.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
Toluene (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	6.86 - 8.48 mg/l, 96 hours

Persistence and degradability The product contains inorganic compounds which are not biodegradable.

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient n-octanol / water (log Kow)

Dicumyl peroxide (CAS 80-43-3)	5.5
Toluene (CAS 108-88-3)	2.73

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

Mobility in general The product contains substances which are insoluble in water and which sediment in water systems. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

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	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)

Refractories, Fibers, Aluminosilicate (CAS 142844-00-6) 0.1 % One-Time Export Notification only.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Toluene (CAS 108-88-3) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Toluene	108-88-3	<5

Other federal regulations

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

Toluene (CAS 108-88-3)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

US state regulations WARNING: This product may contain a chemical known to the State of California to cause cancer.

US. Massachusetts RTK - Substance List

Graphite (CAS 7782-42-5)
Quartz (SiO2) (CAS 14808-60-7)

Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)
Toluene (CAS 108-88-3)

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

Carbon fiber (CAS 7440-44-0)
Graphite (CAS 7782-42-5)
Quartz (SiO2) (CAS 14808-60-7)
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)
Toluene (CAS 108-88-3)

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

Graphite (CAS 7782-42-5)
Quartz (SiO2) (CAS 14808-60-7)
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)
Toluene (CAS 108-88-3)

US. Rhode Island RTK

Toluene (CAS 108-88-3)

US. California Proposition 65

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

Quartz (SiO2) (CAS 14808-60-7)
Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
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)	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 16-March-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: 2*
Flammability: 2
Physical hazard: 0
Personal protection: I

NFPA ratings

List of abbreviations

LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.
EC50: Effective concentration, 50%.

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.