

SAFETY DATA SHEET**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name or designation of the mixture	Sealant 4
Registration number	-
Synonyms	None.
Product code	800-0062
Issue date	19-August-2013
Version number	00
Revision date	19-August-2013
Supersedes date	-

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Industrial Leak Sealant.
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier	Team Industrial Services, Inc.
Address	Postbus 37 4380 AA Vlissingen 3237 The Netherlands
Telephone	+31 (0) 118 48 58 00
Fax	+31 (0) 118 48 58 86
e-mail	Not available.
Contact person	Not available.

1.4. Emergency telephone number	+(61)-290372994, +1 703-527-3887
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC as amended**

This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Main symptoms	Direct contact with eyes may cause temporary irritation.

2.2. Label elements**Label according to Regulation (EC) No. 1272/2008 as amended**

Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

Precautionary statements

Prevention	Observe good industrial hygiene practices.
Response	Wash thoroughly after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information	Not applicable.
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2.3. Other hazards	Not a PBT or vPvB substance or mixture.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Aluminum Silicate	>1	1332-58-7 310-194-1	-	-	
Classification:					
DSD:	-				
CLP:	-				
Carbon fiber	>1	7440-44-0 231-153-3	-	-	
Classification:					
DSD:	-				
CLP:	-				
Refractories, Fibers, Aluminosilicate	>1	142844-00-6 -	-	650-017-00-8	
Classification:					
DSD:	Carc. Cat. 2;R49				
CLP:	Carc. 1B;H350				
Tetraborate pentahydrate	0,3 - <4,5	12179-04-3 215-540-4	-	005-011-02-9	
Classification:					
DSD:	Repr. Cat. 2;R60-61				
CLP:	Repr. 1B;H360FD				

Composition comments

The full text for all R- and H-phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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.

SECTION 4: First aid measures

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation	Remove victim to fresh air. Get medical attention if symptoms persist.
Skin contact	Wash area with soap and water. Get medical attention if irritation develops or persists.
Eye contact	Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.
Ingestion	Rinse mouth and drink plenty of water. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort occurs.

4.2. Most important symptoms and effects, both acute and delayed

Direct contact with eyes may cause temporary irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards

The product is not flammable.

5.1. Extinguishing media

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	No restrictions known.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Use standard firefighting procedures and consider the hazards of other involved materials. Cool material exposed to heat with water spray and remove it if no risk is involved.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid inhalation of dust. Avoid prolonged and repeated contact.

For emergency responders

Use personal protection as recommended in section 8 of the SDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Collect and dispose of spillage as indicated in section 13 of the SDS.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Provide adequate ventilation. Avoid inhalation of dust. Avoid prolonged and repeated contact. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store in closed original container in a dry place. Keep away from open flames.

7.3. Specific end use(s)

Industrial Leak Sealant.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	MAK	5 mg/m ³	Respirable dust.
	STEL	10 mg/m ³	Respirable dust.

Austria. TRK List

Components	Type	Value	Form
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	STEL	2000000 fibers/m ³	Fiber.
	TWA	500000 fibers/m ³	Fiber.

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable fraction.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m ³	Respirable fraction.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	6 mg/m ³	Inhalable fraction.
		3 mg/m ³	Respirable fraction.
Carbon fiber (CAS 7440-44-0)	TWA	5 mg/m ³	Inhalable fraction.
		1 fibers/cm ³	Respirable fraction.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	6 mg/m ³	Inhalable fraction.

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value
Carbon fiber (CAS 7440-44-0)	TWA	10 mg/m ³

Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	10 mg/m ³	Total dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	10 mg/m ³ 0,3 fibers/cm ³	Respirable dust. Respirable fibers.

Denmark. Exposure Limit Values

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TLV	2 mg/m ³	Respirable.
Carbon fiber (CAS 7440-44-0)	TLV	2,5 mg/m ³	Respirable.

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	3 mg/m ³	Dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	1 fibers/mL	

Finland. Workplace Exposure Limits

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m ³	
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	0,2 fibers/cm ³	Respirable.

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	VME	10 mg/m ³	
Carbon fiber (CAS 7440-44-0)	VME	2 mg/m ³	Respirable fraction.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	VME	1 fibers/cm ³ 0,1 fibers/cm ³	Fiber. Fiber.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	4 mg/m ³ 1,5 mg/m ³	Inhalable fraction. Respirable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	AGW	3 mg/m ³ 10 mg/m ³	Respirable fraction. Inhalable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	5 mg/m ³	Respirable.
		10 mg/m ³	Inhalable

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable dust.
Carbon fiber (CAS 7440-44-0)	TWA	5 mg/m ³	Total dust.
		2,5 mg/m ³	Respirable dust.

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable dust.
Carbon fiber (CAS 7440-44-0)	TWA	4 mg/m ³	Respirable dust.
		10 mg/m ³	Total inhalable dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	1 fibers/cm ³	
		5 mg/m ³	
		5 mg/m ³	

Italy. OELs

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable fraction.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m ³	Respirable fraction.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	0,2 fibers/cm ³	Fiber.

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m ³	Dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	2 mg/m ³	

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	3 mg/m ³	Dust.

Netherlands. OELs (binding)

Components	Type	Value	Form
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	0,5 fibers/cc	Respirable fibers.

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TLV	2 mg/m ³	Respirable dust.
		10 mg/m ³	Total dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TLV	0,1 fibers/cm ³	Fiber.

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	10 mg/m ³	Total dust.
Carbon fiber (CAS 7440-44-0)	TWA	4 mg/m ³	Total dust.
		1 mg/m ³	Respirable dust.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable fraction.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m ³	Respirable fraction.

Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m ³	Respirable fraction.
		10 mg/m ³	Total

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	500000 fibers/cm ³

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable fraction.
Carbon fiber (CAS 7440-44-0)	TWA	2 mg/m ³	Dust.

Sweden. Occupational Exposure Limit Values

Components	Type	Value	Form
Carbon fiber (CAS 7440-44-0)	TWA	0,2 fibers/mL	
		5 mg/m ³	Total dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	0,2 fibers/mL	

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	3 mg/m ³	Respirable dust.
Carbon fiber (CAS 7440-44-0)	TWA	5 mg/m ³	Inhalable dust.
		2,5 mg/m ³	Respirable dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	0,25 fibers/mL	Fiber.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Aluminum Silicate (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable dust.
Carbon fiber (CAS 7440-44-0)	TWA	4 mg/m ³	Respirable dust.
		10 mg/m ³	Inhalable dust.
Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)	TWA	2 fibers/mL	

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
		5 mg/m ³	
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Recommended monitoring procedures	Follow standard monitoring procedures.		
Derived no-effect level (DNEL)	Not available.		
Predicted no effect concentrations (PNECs)	Not available.		
8.2. Exposure controls			
Appropriate engineering controls	Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of dust.		
Individual protection measures, such as personal protective equipment			
General information	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.		
Eye/face protection	Risk of contact: Wear approved safety glasses or goggles.		
Skin protection			
- Hand protection	Wear protective gloves.		
- Other	Where skin contact is likely, wear chemical impervious gloves. In accordance with good industrial hygiene practices, precautions should be taken to avoid 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.		
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.		
Hygiene measures	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.		
Environmental exposure controls	Environmental manager must be informed of all major releases.		

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Brownish thick fibrous paste.
Physical state	Solid.
Form	Paste.
Colour	Brownish.
Odour	Mild odor.
Odour threshold	Not available.
pH	11,5
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 204,4 °C (> 400,0 °F) Cleveland open cup
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.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1,3 (uncured) (H ₂ O =1)
Solubility(ies)	Not available.

Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	565,56 °C (1050 °F)
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidizing properties	Not available.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	Hazardous polymerisation does not occur. Hazardous reactions do not occur.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Oxidizers. Acids.
10.6. Hazardous decomposition products	Thermal decomposition may lead to release of irritating gases and vapors.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Inhalation	Dust may irritate respiratory system. However due to the physical form of the product inhalation of dust is not relevant.
Skin contact	Prolonged skin contact may cause irritation.
Eye contact	May cause eye irritation on direct contact.

Symptoms Direct contact with eyes may cause temporary irritation.

11.1. Information on toxicological effects

Acute toxicity	May cause discomfort if swallowed.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Respiratory sensitisation	Not available.
Skin sensitisation	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	The carcinogenic effect is caused by inhalation of dust particles. Due to the form of the product, exposure to the potentially carcinogenic components is not expected.

IARC Monographs. Overall Evaluation of Carcinogenicity

Refractories, Fibers, Aluminosilicate (CAS 142844-00-6) 2B Possibly carcinogenic to humans.

Reproductive toxicity	The product contains a small amount of substance that is suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity	The product is not expected to be hazardous to the environment.
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.

Partition coefficient n-octanol/water (log K_{ow})	No data available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
Mobility in general	No data available.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose product packaging in accordance with local authority requirements taking into account characteristics of the packaging material.
EU waste code	08 04 10 The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	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. Recover and reclaim or recycle, if practical.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not regulated.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not regulated.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)

Directive 94/33/EC on the protection of young people at work

Refractories, Fibers, Aluminosilicate (CAS 142844-00-6)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative. DSD: Directive 67/548/EEC.
CLP: Regulation No. 1272/2008.

References

IARC Monographs. Overall Evaluation of Carcinogenicity
ESIS (European chemical Substances Information System)

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R49 May cause cancer by inhalation.
R60 May impair fertility.
R61 May cause harm to the unborn child.
H350 May cause cancer.
H360FD May damage fertility. May damage the unborn child.

Training information

Follow training instructions when handling this material.

Disclaimer

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