

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 155K CAT

Registration number -

Synonyms None.

Product code 900-0052

Issue date 14-January-2013

Version number 00

Revision date 14-January-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**Supplier**

Company name 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 +1 703-527-3887

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification F;R11, R43

The full text for all R-phrases is displayed in section 16.

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

Flammable solids

Category 2

H228 - Flammable solid.

Health hazards

Skin sensitisation

Category 1

H317 - May cause an allergic skin reaction.

Hazard summary

Physical hazards Highly flammable.

Health hazards May cause sensitisation by skin contact. Occupational exposure to the substance or mixture may cause adverse health effects.

Environmental hazards Not classified for hazards to the environment.

Specific hazards Dusts or powder may irritate the respiratory tract, skin and eyes. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Main symptoms Symptoms can include irritation, redness, scratching of the cornea, and tearing. Sensitisation.

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

Contains: Hexamethylenetetramine

Hazard pictograms



Signal word

Warning

Hazard statements

H228 - Flammable solid.
H317 - May cause an allergic skin reaction.

Precautionary statements

Prevention

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Wear protective gloves/clothing and eye/face protection.

Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.

Storage

Store away from incompatible materials.

Disposal

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information

Not applicable.

2.3. Other hazards

Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Hexamethylenetetramine	50 - 100	100-97-0 202-905-8	-	612-101-00-2	
Classification:	DSD: F;R11, R43				
	CLP: Flam. Sol. 2;H228, Skin Sens. 1;H317				

#: This substance has been assigned Community workplace exposure limit(s).

Composition comments

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

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

Get medical attention.

Skin contact

Remove contaminated clothing. Wash immediately with soap and water for at least 15 minutes. In case of allergic reaction or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact

Dust in the eyes: Do not rub eyes. 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

Immediately give plenty of water (if possible charcoal slurry). Never give liquid to an unconscious person. 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

Symptoms can include irritation, redness, scratching of the cornea, and tearing. Skin irritation. Sensitisation.

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

Persons with pre-existing respiratory tract, skin and lung (such as asthma) disorders may be aggravated by exposure to this product.

SECTION 5: Firefighting measures

General fire hazards

Flammable solid.

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media

No restrictions known.

5.2. Special hazards arising from the substance or mixture	Dust may form explosive mixture with air. During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment 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.
Special fire fighting procedures	Ventilate closed spaces before entering them. Containers close to fire should be removed immediately or cooled with water. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Avoid inhalation of dust and contact with skin and eyes. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate closed spaces before entering them. Wear appropriate protective equipment and clothing during clean-up. See Section 8 for personal protective equipment.
For emergency responders	Keep unnecessary personnel away. Use personal protection as recommended in section 8 of the SDS.

6.2. Environmental precautions Prevent further leakage or spillage if safe to do so. Environmental manager must be informed of all major spillages.

6.3. Methods and material for containment and cleaning up Eliminate all ignition sources. Avoid dust formation. Collect dust using a vacuum cleaner equipped with HEPA filter. If not possible, gently moisten dust before it is collected with shovel, broom or the like. The vacuum cleaner should be explosion-proofed. Never return spills in original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid inhalation of dust and contact with skin and eyes. Dust clouds may be explosive under certain conditions. Flammable Solid. Ground container and transfer equipment to eliminate static electric sparks. Use only with adequate ventilation. Use non-sparking tools and explosion-proof equipment. Use personal protective equipment as required.

7.2. Conditions for safe storage, including any incompatibilities Follow rules for flammable solids. Keep away from heat, spark, open flames and other sources of ignition. Store in a cool, dry, well-ventilated place. Store in a closed container away from incompatible materials.

7.3. Specific end use(s) Industrial Leak Sealant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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

Components	Type	Value
Hexamethylenetetramine (CAS 100-97-0)	TWA	2 mg/m ³

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

Components	Type	Value
Hexamethylenetetramine (CAS 100-97-0)	STEL	5 mg/m ³
	TWA	3 mg/m ³

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

Components	Type	Value
Hexamethylenetetramine (CAS 100-97-0)	TWA	3 mg/m ³

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

Components	Type	Value
Hexamethylenetetramine (CAS 100-97-0)	STEL	5 mg/m ³
	TWA	3 mg/m ³

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
Hexamethylenetetramine (CAS 100-97-0)	TLV	3 mg/m ³

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

Components	Type	Value
Hexamethylenetetramine (CAS 100-97-0)	TWA	4 mg/m ³

Sweden. Occupational Exposure Limit Values

Components	Type	Value
Hexamethylenetetramine (CAS 100-97-0)	STEL	5 mg/m ³
	TWA	3 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)

Components	Type	Route	Value	Form
Hexamethylenetetramine (CAS 100-97-0)	Workers	Dermal	8,8 mg/kg/day	Long term Systemic effects
		Dermal	229 mg/kg/day	Acute Systemic effects
		Inhalation	31 mg/m ³	Long term Systemic effects
		Inhalation	1400 mg/m ³	Acute Systemic effects

Predicted no effect concentrations (PNECs)

Components	Type	Route	Value	Form
Hexamethylenetetramine (CAS 100-97-0)	Aqua (freshwater)	Not applicable	3 mg/l	
	Aqua (intermittent releases)	Not applicable	30 mg/l	
	Aqua (marine water)	Not applicable	0,5 mg/l	
	Oral	Not applicable	0,05 g/kg	
	Sediment (freshwater)	Not applicable	11 mg/kg	
	Sediment (marine water)	Not applicable	1,84 mg/kg	
	Sewage Treatment Plant	Not applicable	100 mg/l	
	Soil	Not applicable	0,58 mg/kg	

8.2. Exposure controls

Appropriate engineering controls Ventilate as needed to control airborne dust. Observe occupational exposure limits and minimise the risk of inhalation of dust. Use explosion-proof equipment.

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 Wear approved safety goggles.

Skin protection

- Hand protection Wear protective gloves. Nitrile gloves are recommended. 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 or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P2). Seek advice from local supervisor.

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	White powder with black specks.
Physical state	Solid.
Form	Powder.
Colour	White with black specks.
Odour	Odourless.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	280 °C (536 °F) Sublimes.
Initial boiling point and boiling range	Not available.
Flash point	193,9 °C (381 °F) Closed cup
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1
Solubility(ies)	Completely soluble in water.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	390 °C (734 °F)
Decomposition temperature	Not available.
Viscosity	Not applicable.
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 stable and non reactive under normal conditions of storage and transport.
10.2. Chemical stability	The product is hygroscopic and will absorb water by contact with the moisture in the air.
10.3. Possibility of hazardous reactions	Will not occur.
10.4. Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
10.5. Incompatible materials	Strong acids. Strong oxidising agents. Attacks aluminum and zinc.
10.6. Hazardous decomposition products	Ammonia. Cyanide compounds. Formaldehyde.

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.
Inhalation	Dust may irritate respiratory system.
Skin contact	May cause an allergic skin reaction. Dust may irritate skin.
Eye contact	Dust may irritate the eyes.
Symptoms	Symptoms can include irritation, redness, scratching of the cornea, and tearing. Skin irritation. Sensitisation.
11.1. Information on toxicological effects	
Acute toxicity	May cause skin and eye irritation.
Skin corrosion/irritation	Dust may irritate skin.

Serious eye damage/irritation	Dust may irritate the eyes.
Respiratory sensitisation	Not available.
Skin sensitisation	May cause allergic skin reaction.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classified.
Reproductive toxicity	Contains no ingredient listed as toxic to reproduction
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Due to the physical form of the product it is not an aspiration hazard.
Mixture versus substance information	Not available.
Other information	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

SECTION 12: Ecological information

12.1. Toxicity 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.

Components	Species	Test results	
Hexamethylenetetramine (CAS 100-97-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	29868 - 43390 mg/l, 48 hours
Fish	LC50	Bleak (Alburnus alburnus)	> 10000 mg/l, 96 hours

12.2. Persistence and degradability No data available.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow) No data available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

Mobility in general The product is soluble in water.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations.

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

EU waste code 16 03 05*

Disposal methods/information Dispose in accordance with applicable federal, state, and local regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN1328
14.2. UN proper shipping name	HEXAMETHYLENE-TETRAMINE
14.3. Transport hazard class(es)	4.1
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	No
Tunnel restriction code	Not available.
Labels required	4.1
14.6. Special precautions for user	Not available.

RID

14.1. UN number	UN1328
14.2. UN proper shipping name	Hexamethylenetetramine
14.3. Transport hazard class(es)	4.1
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	No
Labels required	4.1
14.6. Special precautions for user	Not available.

ADN

14.1. UN number	UN1328
14.2. UN proper shipping name	Hexamethylene-tetramine
14.3. Transport hazard class(es)	4.1
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	No
Labels required	4.1
14.6. Special precautions for user	Not available.

IATA

14.1. UN number	UN1328
14.2. UN proper shipping name	Hexamethylenetetramine
14.3. Transport hazard class(es)	4.1
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	No
Labels required	4.1
ERG Code	Not available.
14.6. Special precautions for user	Not available.

IMDG

14.1. UN number	UN1328
14.2. UN proper shipping name	Hexamethylenetetramine
14.3. Transport hazard class(es)	4.1
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	No
Labels required	4.1
14.6. Special precautions for user	Not available.

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**

F - Highly flammable

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

Not listed.

Authorisations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation

Not listed.

Restrictions on use

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

Hexamethylenetetramine (CAS 100-97-0)

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

Hexamethylenetetramine (CAS 100-97-0)

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

Hexamethylenetetramine (CAS 100-97-0)

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.

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. 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

Not available.

Information on evaluation method leading to the classification of mixture

The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.

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

R11 Highly flammable.
R43 May cause sensitisation by skin contact.

H228 - Flammable solid.
H317 - May cause an allergic skin reaction.

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.