

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 TC-4 A
 Registration number -
 Synonyms None.
 Product code 803-0008
 Issue date 03-September-2013
 Version number 00
 Revision date 03-September-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

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 Xi;R36/38, R43, N;R51/53

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

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

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
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Hazard summary

Physical hazards Not classified for physical hazards.
Health hazards Irritating to eyes and skin. May cause sensitisation by skin contact.
Environmental hazards Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Specific hazards Ingestion may cause irritation and malaise.
Main symptoms Causes eye irritation. Causes skin irritation. Symptoms include itching, burning, redness and tearing. Sensitisation. Upper respiratory tract irritation. Ingestion may cause irritation and malaise.

2.2. Label elements

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

Contains: 2-ethylhexyl Glycidyl Ether Mixture, Epoxy phenol novolac resin, Reaction of Epichlorohydrin and Bisphenol

Hazard pictograms



Signal word

Warning

Hazard statements

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.

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.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: 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

Contains epoxy constituents. May produce an allergic reaction.

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
Reaction of Epichlorohydrin and Bisphenol	49	25085-99-8	-	-	
Classification:	DSD:	Xi;R36/38, R43, N;R51-53			
	CLP:	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Aquatic Chronic 2;H411			
Epoxy phenol novolac resin	16	28064-14-4	-	-	
Classification:	DSD:	Xi;R36/38, R43, N;R51-53			
	CLP:	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Aquatic Chronic 4;H413			
2-ethylhexyl Glycidyl Ether Mixture	11	2461-15-6 219-553-6	-	-	
Classification:	DSD:	Xi;R36/38, R43			
	CLP:	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319			

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

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.

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

In case of discomfort, move to fresh air. Get medical attention, if needed.

Skin contact

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

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Ingestion

Get medical attention if any discomfort occurs.

4.2. Most important symptoms and effects, both acute and delayed	Causes eye irritation. Symptoms include itching, burning, redness, and tearing of eyes. Causes skin irritation. Symptoms may include redness, drying and cracking of the skin. May cause sensitisation by skin contact.
4.3. Indication of any immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards	The product is not flammable. However: Will burn if strongly heated and when involved in fire.
5.1. Extinguishing media	
Suitable extinguishing media	Dry chemical powder. Carbon dioxide (CO ₂). Foam.
Unsuitable extinguishing media	Water may be ineffective.
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, operated in positive pressure mode 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	Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Avoid contact with skin and eyes. Avoid prolonged and repeated contact. For personal protection, see section 8 of the SDS.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
6.2. Environmental precautions	Prevent entry into waterways, sewer, basements or confined areas. Environmental manager must be informed of all major spillages.
6.3. Methods and material for containment and cleaning up	Collect and dispose of spillage as indicated in section 13 of the SDS. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Wipe up with absorbent material (e.g. cloth, fleece). Should not be released into the environment. Never return spills in original containers for re-use. Prevent product from entering drains. Containers must be labeled.
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	Avoid contact with skin and eyes. Wear personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Do not smoke and do not spray near a naked flame or other sources of ignition. Persons with epoxy allergy should not work with this product.
7.2. Conditions for safe storage, including any incompatibilities	Do not store near heat sources or expose to high temperatures. Store in tightly closed original container. Store in a cool and well-ventilated place. Store 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	No exposure limits noted for ingredient(s).
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.
Exposure guidelines	Provide adequate ventilation.
8.2. Exposure controls	
Appropriate engineering controls	General ventilation normally adequate. Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.

Individual protection measures, such as personal protective equipment

General information	Use personal protective equipment as required. 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 chemical safety goggles. Wear safety glasses with side shields.
Skin protection	
- Hand protection	Wear appropriate chemical resistant gloves. Nitrile 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. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.
Respiratory protection	In case of inadequate ventilation, use respiratory protection. Use respiratory equipment with combination filter, type A2/P2.
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. Personal protective equipment should not be worn during lunch breaks. Private clothes and working clothes should be kept separately.
Environmental exposure controls	Environmental manager must be informed of all major spillages.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Physical state	Liquid.
Form	Paste.
Colour	Various colors.
Odour	Mild aromatic.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	100,0 °C (212,0 °F)
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	1 at 77°F (760mm Hg)
Vapour density	4,5 (Air = 1)
Relative density	1,35
Solubility(ies)	Negligible In water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
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 stable and non reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	The product is stable under normal conditions of use, storage and transport.

10.3. Possibility of hazardous reactions	Will not occur by itself.
10.4. Conditions to avoid	Exposure to heat and contact with sources of ignition. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents. Strong acids. Amines. Strong alkalis.
10.6. Hazardous decomposition products	During combustion: Carbon oxides. Phenolic compounds.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Ingestion	Ingestion may cause irritation and malaise.
Inhalation	May cause irritation of nose, throat and mucous membranes.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes eye irritation.

Symptoms Causes eye irritation. Symptoms include itching, burning, redness and tearing. Causes skin irritation. Sensitisation. Ingestion may cause irritation and malaise.

11.1. Information on toxicological effects

Acute toxicity	Ingestion may cause irritation and malaise.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitisation	No data available.
Skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available.
Carcinogenicity	Not classified.
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	Not classified.
Mixture versus substance information	Not available
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity	No toxicity data noted for the ingredient(s).
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	The product is not expected to bioaccumulate.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	Not available.
Mobility in general	The product is slightly soluble in water.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	No data 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	08 04 09* The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Dispose in accordance with all applicable regulations. Do not allow runoff to sewer, waterway or ground.

SECTION 14: Transport information

ADR	
14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Reaction of Epichlorohydrin and Bisphenol)
14.3. Transport hazard class(es)	9
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
Tunnel restriction code	E
Labels required	9
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
RID	
14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Reaction of Epichlorohydrin and Bisphenol)
14.3. Transport hazard class(es)	9
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
Labels required	9
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ADN	
14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally Hazardous Liquid, N.o.s. (Reaction of Epichlorohydrin and Bisphenol)
14.3. Transport hazard class(es)	9
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
Labels required	9
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
IATA	
14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Reaction of Epichlorohydrin and Bisphenol)
14.3. Transport hazard class(es)	9
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
Labels required	Not available.
ERG code	9L
14.6. Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
IMDG	
14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction of Epichlorohydrin and Bisphenol)
14.3. Transport hazard class(es)	9
Subsidiary class(es)	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	Yes
Labels required	Not available.
EmS	F-A, S-F

14.6. Special precautions for user Not available.

General Read safety instructions, SDS and emergency procedures before handling.
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

Not listed.

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

Not listed.

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

Not listed.

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

Not listed.

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

Young people under 18 years old are not allow to work with this product according to the 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.

References

ESIS (European chemical Substances Information System)
IARC: International Agency for Research on Cancer.
HSDB® - Hazardous Substances Data Bank

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

R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R51 Toxic to aquatic organisms.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53 May cause long-term adverse effects in the aquatic environment.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

Training information

Follow training instructions when handling this material.

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.