Safety Data Sheet
1550-M

according to Regulation (EC) No 1907/2006

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

1550-M

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

any non-intended use.

1.3. Details of the supplier of the safety data sheet

Cyanotec Ltd
Bay 2, Building 62, Third Avenue
Kingswinford, Dudley, West Midlands
DY6 7XT
T +44(0)1384 294753
sales@cyanotec.com

1.4. Emergency telephone number:

Emergency number: +44 (0)1384 294753 (Office hours 0900-1700hrs MONDAY TO THURSDAY)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Indications of danger: Xn - Harmful, Xi - Irritant, N - Dangerous for the environment
R phrases:
Harmful by inhalation.
Irritating to eyes, respiratory system and skin.
May cause sensitisation by skin contact.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Acute toxicity: Acute Tox. 4
Acute toxicity: Acute Tox. 4
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Dam. 1
Respiratory/skin sensitization: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Acute 1
Hazardous to the aquatic environment: Aquatic Chronic 1
Hazard Statements:
Harmful if swallowed or in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause respiratory irritation.
Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

2-hydroxyethyl methacrylate
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate
N,N-dimethylacrylamide
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane

Signal word: Danger

Pictograms: GHS05-GHS07-GHS09

Hazard statements

H302+H312	Harmful if swallowed or in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container to in accordance with official regulations.

Special labelling of certain mixtures

EUH205	Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
212-782-2	2-hydroxyethyl methacrylate	45 - < 50 %
868-77-9	Xi - Irritant R36/38-43	
607-124-00-X	Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1; H319 H315 H317	
227-561-6	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	30 - < 35 %
5888-33-5	Xi - Irritant, N - Dangerous for the environment R36/37/38-43-50-53	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1B, STOT SE 3, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H315 H319 H317 H335 H400 H410	
220-237-5	N,N-dimethylacrylamide	15 - < 20 %
2680-03-7	T - Toxic, Xn - Harmful, Xi - Irritant R21/22-23-36	
	Acute Tox. 3, Acute Tox. 3, Eye Dam. 1; H301 H311 H318	
219-784-2	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	1 - < 5 %
2530-83-8	Xi - Irritant R41	
	Eye Dam. 1; H318	

Full text of R-, H- and EUH-phrases: see section 16.

Further Information

Product does not contain listed SVHC substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of irregular breathing or respiratory arrest provide artificial respiration. In case of irritation of the respiratory tract seek medical advice.
In the case of lung irritation: Primary treatment using corticoide spray, eg. Auxiloson spray, Pulmicort-dosage-spray. (Auxiloson and Pulmicort are registered trademarks).

After contact with skin

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately get medical attention.

After ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Let water be swallowed in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. Call a POISON CENTER or doctor/physician.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry extinguishing powder. Foam. Water spray. Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO2).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.
Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing.
Wear personal protection equipment. (refer to chapter 8)

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). In case of leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Ventilate affected area.
Treat the assimilated material according to the section on waste disposal.
Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation.
Wear suitable protective clothing. (Refer to chapter 8.)

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

Do not breathe gas/vapour/spray. Avoid contact with skin, eye and clothing.
General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep container dry.

Advice on storage compatibility

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances.

Further information on storage conditions

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

To date, no national limit values exist.

8.2. Exposure controls

Appropriate engineering controls

In case of open handling, use devices with built-in suction where possible. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use. Used working clothes should not be used outside the work area. Street clothing should be stored seperately from work clothing. Protect skin by using skin protective cream.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. DIN EN 166

Hand protection

Pull-over gloves of rubber. DIN EN 374
Suitable material:
(Breakthrough time >= 480 min, penetration time (maximum wearing period): 160 min)
CR (polychloroprenes, Chloroprene rubber). (0,5 mm)
FKM (fluororubber). (0,4 mm)
Butyl rubber. (0,5 mm)
Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in well-aired place.
In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Skin protection

Protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection required in case of:
insufficient ventilation.
Generation/formation of aerosols
Generation/formation of mist
Suitable respiratory protective equipment: Combination filter device (DIN EN 141).. Type : A / P2/P3
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

Environmental exposure controls

Do not empty into drains or the aquatic environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	viscous
Colour:	-
Odour:	characteristic

	Test method
pH-Value:	not determined
Changes in the physical state	
Melting point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not determined
Explosive properties	
none/none	
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Oxidizing properties	
none/none	
Vapour pressure:	not determined
Density:	not determined
Viscosity / dynamic:	not determined

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous polymerization: Protect from direct sunlight. Can polymerise exothermically if heated, exposed to air, sunlight or by addition or free radical initiators.

10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Protect against: Light. UV-radiation/sunlight. heat. cooling. moisture.

10.5. Incompatible materials

Materials to avoid: Strong acid. Oxidizing agents, strong. Alkalis (alkalis), concentrated.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO_2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Harmful if swallowed or in contact with skin.

ATEmix calculated

ATE (oral) 1433,3 mg/kg; ATE (dermal) 2000,0 mg/kg

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
868-77-9	2-hydroxyethyl methacrylate				
	oral	LD50	>5000 mg/kg	Rat.	ECHA Dossier
	dermal	LD50	>5000 mg/kg	Rabbit.	ECHA Dossier
5888-33-5	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate				
	oral	LD50	4350 mg/kg	Rat.	ECHA Dossier
	dermal	LD50	>2000 mg/kg	Rabbit.	ECHA Dossier
2680-03-7	N,N-dimethylacrylamide				
	oral	LD50 mg/kg	>215 - <464	Rat. (OECD 401)	ECHA Dossier
	dermal	ATE	300 mg/kg		
2530-83-8	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane				
	oral	LD50	>5000 mg/kg	Rat. (OECD 401)	ECHA Dossier
	dermal	LD50	>2000 mg/kg	Rabbit. (OECD 402)	ECHA Dossier
	inhalative (4 h) aerosol	LC50	> 5,3 mg/l	Rat. (OECD 403)	ECHA Dossier

Irritation and corrosivity

Causes skin irritation.
Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (2-hydroxyethyl methacrylate), (exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
Product is: sensitizing.
People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

STOT-single exposure

May cause respiratory irritation. (exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)

Severe effects after repeated or prolonged exposure

Based on available data, the classification criteria are not met.
2-hydroxyethyl methacrylate (CAS-No.: 868-77-9):
Subchronic oral toxicity: NOAEL = 30 mg/kg (90d, Rat.)
literature infomation: ECHA Dossier

N,N-dimethylacrylamide (CAS-No.: 2680-03-7):
Subchronic oral toxicity: NOAEL = 10 mg/kg(bw)/day (OECD 411, 90d, Rat.)
literature infomation: ECHA Dossier

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.
2-hydroxyethyl methacrylate (CAS-No.: 868-77-9):
No experimental indications of mutagenicity in-vitro exist.
Reproductive toxicity: NOAEL = 1000 mg/kg (Rat.)
Developmental toxicity/teratogenicity: NOAEL = 50 mg/kg (Rabbit.)
literature infomation: ECHA Dossier

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (CAS-No.: 5888-33-5):
No experimental indications of mutagenicity in-vitro exist.
Reproductive toxicity: NOAEL = 100 mg/kg(bw)/day (OECD 422; Rat.)
Developmental toxicity/teratogenicity: NOAEL = 500 mg/kg(bw)/day (OECD 421; Rat.)
literature infomation: ECHA Dossier

[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane (CAS-No.: 2530-83-8):
In-vitro mutagenicity: OECD Guideline 471 (Bacterial Reverse Mutation Assay) = positive.
Carcinogenicity: (Rat.) NOAEL = >5 mg/kg
Developmental toxicity/teratogenicity: (Rat.) NOAEL = >500 mg/kg
Reproductive toxicity:: (Rabbit.) NOAEL = >200 mg/kg
literature infomation: ECHA Dossier

N,N-dimethylacrylamide (CAS-No.: 2680-03-7):
No experimental indications of mutagenicity in-vitro exist.
Reproductive toxicity: NOAEL = 30 mg/kg (OECD 421; Rat.)
literature infomation: ECHA Dossier

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No information available.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] | [d]	Species	Source
868-77-9	2-hydroxyethyl methacrylate					
	Acute fish toxicity	LC50	227 mg/l	96 h	Pimephales promelas	ECHA Dossier
	Acute algae toxicity	ErC50	836 mg/l	72 h	Selenastrum capricornutum	ECHA Dossier
	Acute crustacea toxicity	EC50	380 mg/l	48 h	Daphnia magna	ECHA Dossier
5888-33-5	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate					
	Acute fish toxicity	LC50	0,704 mg/l	96 h	Danio rerio (OECD 203)	ECHA Dossier
	Acute algae toxicity	ErC50	0,596 mg/l	72 h	Pseudokirchnerella subcapitata (OECD 201)	ECHA Dossier
	Crustacea toxicity	NOEC	0,092 mg/l	21 d	Daphnia magna (OECD 211)	ECHA Dossier
2680-03-7	N,N-dimethylacrylamide					
	Acute fish toxicity	LC50	>120 mg/l	96 h	Oncorhynchus mykiss (OECD 203)	ECHA Dossier
	Acute algae toxicity	ErC50	>400 mg/l	72 h	Pseudokirchnerella subcapitata (OECD 201)	ECHA Dossier
	Acute crustacea toxicity	EC50	>120 mg/l	48 h	Daphnia magna (OECD 202)	ECHA Dossier
	Acute bacteria toxicity	(>1000 mg/l)		3 h	activated sludge, domestic (OECD 209)	ECHA Dossier
2530-83-8	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane					
	Acute fish toxicity	LC50	(55) mg/l	96 h	Cyprinus carpio	ECHA Dossier
	Acute crustacea toxicity	EC50	324 mg/l	48 h	Simocephalus vetulus	ECHA Dossier
	Crustacea toxicity	NOEC	>100 mg/l	21 d	Daphnia magna	ECHA Dossier

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
868-77-9	2-hydroxyethyl methacrylate			
	OECD 301C / ISO 9408 / EWG 92/69 Anhang V, C.4-F	>92%	14	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			
5888-33-5	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate			
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	51%	28	ECHA Dossier
	Product is not easily biodegradable.			
2680-03-7	N,N-dimethylacrylamide			
	OECD 301C / ISO 9408 / EEC 92/69 annex V, C.4-F	0%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
2530-83-8	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane			
	OECD 301A / ISO 7827 / EEC 92/69 annex V, C.4-A	37%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
868-77-9	2-hydroxyethyl methacrylate	0,47
5888-33-5	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	4,52
2680-03-7	N,N-dimethylacrylamide	-0,3
2530-83-8	[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	-2,6

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not empty into drains or the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal. Cleaned containers may be recycled.
Control report for waste code/ waste marking according to EAKV:

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Classification code: M6
Special Provisions: 274 335 601
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 90
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Classification code: M6
Special Provisions: 274 335 601
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9

Marine pollutant: YES
Special Provisions: 274, 335
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-A, S-F

Air transport (ICAO)

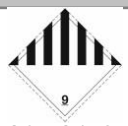
14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9



Special Provisions:	A97 A158
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y964
Excepted quantity:	E1
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

Danger releasing substance: exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

irrelevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC):	No information available.
2004/42/EC (VOC):	No information available.

Additional information

The preparation is dangerous in the sense of Directive 1999/45/EC.
This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].
Regulation 96/82/EC for danger control following severe accidents with dangerous substances: Appendix I, Part 2, No 9i, (Seveso II).
REACH 1907/2006 Appendix XVII, No 3

National regulatory information

Employment restrictions:	Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D):	2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Rev. 1,00; 19.03.2019, Initial release

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
CAS Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect level
NTP: National Toxicology Program
N/A: not applicable
OSHA: Concerning the International Transport of Dangerous Goods by Rail)
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SARA: Superfund Amendments and Reauthorization Act
SVHC: substance of very high concern
TRGS Technische Regeln für Gefahrstoffe
TSCA: Toxic Substances Control Act
VOC: Volatile Organic Compounds
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
WGK: Wassergefährdungsklasse

Relevant R-phrases (Number and full text)

21/22	Harmful in contact with skin and if swallowed.
23	Toxic by inhalation.
36	Irritating to eyes.
36/37/38	Irritating to eyes, respiratory system and skin.
36/38	Irritating to eyes and skin.
41	Risk of serious damage to eyes.
43	May cause sensitisation by skin contact.
50	Very toxic to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.

Relevant H- and EUH-phrases (Number and full text)

H301	Toxic if swallowed.
H302+H312	Harmful if swallowed or in contact with skin.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid

for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)