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

1.1 Product identifier

Wencon CS HI-Build - Component A (185000160A)
PR-number (Danish): 4505963

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

Solventfree two component coating based on epoxy

Relevant identified uses

In compliance with the conditions described in the annex to this safety data sheet. See section 16 for a comprehensive list of uses, for which an exposure scenarion is provided as an annex.

Sectors of use [SU]

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories [PROC]

PROC 10 - Roller application or brushing
PROC 19 - Manual activities involving hand contact
PROC 21 - Low energy manipulation of substances bound in materials and/or articles
PROC 24 - High (mechanical) energy work-up of substances bound in/on materials and/or articles

Environmental release categories [ERC]

ERC 8c - Widespread use leading to inclusion into/onto article (indoor)
ERC 8f - Widespread use leading to inclusion into/onto article (outdoor)
ERC 10a - Widespread use of articles with low release (outdoor)
ERC 11a - Widespread use of articles with low release (indoor)

Article categories [AC]

AC 7 - Metal articles

Uses advised against

Do not use for private purposes (household).

Remark

The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer) : Wencon ApS
Street : Jyllandsvej 15
Postal code/City : DK-5400 BOGENSE
Telephone : +45 6481 1010
Information contact : wencon@wencon.com

1.4 Emergency telephone number

+44 870 600 62 66 (UK National Poisons Emergency Number)
European emergency number: 112. Danmark: (Giftlinjen +45 82 12 12 12), only for the purpose of informing medical personnel in cases of acute intoxications.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Skin Irrit. 2 ; H315 - Skin corrosion/irritation : Category 2 ; Causes skin irritation.
Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2 ; Causes serious eye irritation.
Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.
Repr. 1B ; H360F - Reproductive toxicity : Category 1B ; May damage fertility.
Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Chronic 2 ; Toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms



Health hazard (GHS08) · Environment (GHS09) · Exclamation mark (GHS07)

Signal word

Danger

Hazard components for labelling

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; CAS No. : 9003-36-5

BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE ; CAS No. : 1675-54-3

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-(CHLOROMETHYL)OXIRANE ; CAS No. : 933999-84-9

PHENOL, METHYL STYRENATED ; CAS No. : 68512-30-1

Hazard statements

H360F	May damage fertility.
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

P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P405	Store locked up.

Special rules for supplemental label elements for certain mixtures

EUH205	Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards

Adverse human health effects and symptoms

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse environmental effects

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; REACH No. : 01-2119454392-40 ; EC No. : 500-006-8; CAS No. : 9003-36-5

Weight fraction :	≥ 55 - < 60 %
Classification 1272/2008 [CLP] :	Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Chronic 2 ; H411

BIS-[4-(2,3-EPOXIPROPOXI)PHENYL]PROPANE ; REACH No. : 01-2119456619-26 ; EC No. : 216-823-5; CAS No. : 1675-54-3

Weight fraction :	≥ 10 - < 15 %
Classification 1272/2008 [CLP] :	Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319
Specific Conc. Limits :	Eye Irrit. 2 ; H319: C ≥ 5 % • Skin Irrit. 2 ; H315: C ≥ 5 %

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-(CHLOROMETHYL)OXIRANE ; REACH No. : 01-2119463471-41 ; EC No. : 618-939-5; CAS No. : 933999-84-9

Weight fraction : ≥ 10 - < 15 %

Classification 1272/2008 [CLP] : Repr. 1B ; H360F Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319

TITANIUM DIOXIDE ; EC No. : 236-675-5; CAS No. : 13463-67-7

Weight fraction : ≥ 5 - < 10 %

Classification 1272/2008 [CLP] : Carc. 2 ; H351 (Inhalation)

PHENOL, METHYL STYRENATED ; REACH No. : 01-2119555274-38 ; EC No. : 270-966-8; CAS No. : 68512-30-1

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Chronic 3 ; H412

2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; REACH No. : 01-2120118956-48 ; EC No. : 275-073-7; CAS No. : 70969-70-9

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : STOT RE 2 ; H373

Contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH

PHENOL, METHYL STYRENATED ; REACH No. : 01-2119555274-38 ; EC No. : 270-966-8; CAS No. : 68512-30-1

Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately. If unconscious but breathing normally, place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

In case of skin contact

In case of skin reactions, consult a physician. Immediately remove any contaminated clothing, shoes or stockings. After contact with skin, wash immediately with plenty of water and soap. Do not use force or solvents to remove product incrustations from affected skin areas. Do not let product dry on skin.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Keep at rest.

Self-protection of the first aider

First aider: Pay attention to self-protection!

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

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam

Unsuitable extinguishing media
Water spray jet

5.2 Special hazards arising from the substance or mixture
Burning produces heavy smoke. Use suitable breathing apparatus.

Hazardous combustion products
Carbon monoxide

5.3 Advice for firefighters
Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Special protective equipment for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information
Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Do not breathe gas/fumes/vapour/spray. Remove all sources of ignition. Provide adequate ventilation. Remove persons to safety. Use personal protection equipment. See protective measures under point 7 and 8.

For emergency responders
Do not breathe gas/fumes/vapour/spray. Use personal protection equipment. See protective measures under point 7 and 8.

6.2 Environmental precautions
Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Ensure waste is collected and contained.

6.3 Methods and material for containment and cleaning up
For containment
Ensure waste is collected and contained.

For cleaning up
Clean contaminated articles and floor according to the environmental legislation. Clean with detergents. Avoid solvent cleaners. Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections
None

SECTION 7: Handling and storage



7.1 Precautions for safe handling
Protective measures
Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used. It is recommended to design all work processes always so that the following is excluded: Inhalation of vapours or spray/mists Skin contact Eye contact Do not breathe gas/fumes/vapour/spray. When using do not eat, drink, smoke, sniff. Wear personal protection equipment (refer to section 8). Never use pressure to empty container. Use only in well-ventilated areas.

Measures to prevent fire
Keep away from sources of ignition - No smoking.

Environmental precautions

Do not allow to enter into surface water or drains.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Only use containers specifically approved for the substance/product. Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Keep away from:

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place. Store in a place accessible by authorized persons only. Handle and open container with care.

7.3 Specific end use(s)

Observe instructions for use. The regulations of the national employment safety and employment protection commission about the handling for polyurethane/epoxy have to be observed.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL-/PNEC-values

DNEL/DMEL

FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; CAS No. : 9003-36-5

Limit value type :	DNEL worker (local)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	8,3 µg/cm^2
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	29,39 mg/m^3
Limit value type :	DNEL worker (systemic)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	104,15 mg/m^3 bw/day

8.2 Exposure controls

Personal protection equipment



Eye/face protection

Suitable eye protection

Eye glasses with side protection

Skin protection

Hand protection

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Wear cotton undermitten if possible.

Suitable gloves type : Disposable gloves.

Suitable material : NBR (Nitrile rubber)

Required properties : liquid-tight.

Breakthrough time : > 60 minutes

Thickness of the glove material : > 0.5 mm

Recommended glove articles : EN 374

Additional hand protection measures : Do not wear gloves near rotary machines and tools. Check leak tightness/impermeability prior to use. Wear cotton undermitten if possible. Use gloves only once. Take recovery periods for skin regeneration.

Remark : For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Observe the wear time limits as specified by the manufacturer. Breakthrough times and swelling properties of the material must be taken into consideration. In the case of wanting to use the gloves again, clean them before taking off and air them well. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Barrier creams are not substitutes for body protection.

Body protection

Remark : Body protection: not required.

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Suitable respiratory protection apparatus

Combination filtering device Filtering device (EN 147) Full-/half-/quarter-face masks (EN 136/140) Filtering Half-face mask (EN 149) Particle filter device (EN 143).
Filtering device (full mask or mouthpiece) with filter: A P

Additional measures for respiratory protection

Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m3 (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m^3 (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m^3 (1.0 % by vol.) Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo. Full-face mask or mouthpiece with particulate filter: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 15 times the exposure limit. P3 filter: up to a max. of

Remark

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, self-contained breathing apparatus must be used.

General information

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Immediately remove any contaminated clothing, shoes or stockings.

Other protection measures

Further information: see technical data sheet.
Further information: see technical data sheet.
Further information: see technical data sheet.
Technical measures and the application of suitable work processes have priority over personal protection equipment. See section 7. No additional measures necessary.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Liquid

Appearance

Colour : white

Odour

characteristic

Safety characteristics

Flash point :		>	150	°C	DIN 53213-1
Evaporation rate :		<	1		
Vapour pressure :	(50 °C)	<	1000	hPa	
Density :	(20 °C)	approx.	1,25	g/cm³	DIN 53217
Viscosity :	(20 °C)	approx.	12000	mPa*s	
Melting point/freezing point :	not applicable				
Initial boiling point and boiling range :	No data available				
Decomposition temperature :	No data available				
Auto-ignition temperature :	No data available				
Flammable gases :	Not applicable.				
Flammable solids :	Not applicable.				
Oxidising properties.	No data available.				
Lower explosion limit :	No data available				
Upper explosion limit :	No data available				
Explosive properties :	No data available.				
Relative vapour density :	No data available				
Water solubility :	practically insoluble				
Partition coefficient n-octanol/water :	No data available				
pH :	No data available				
Flow time :	not determined				
Kinematic viscosity :	No data available				
Odour threshold :	No data available				

- FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL; CAS No. : 9003-36-5

Initial boiling point and boiling range :	(1000 hPa)	90	°C	

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Ignition hazard.

10.5 Incompatible materials

Exothermic reaction with: Amines.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Acute toxicity

Acute oral toxicity

Parameter :	LD50 (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; CAS No. : 9003-36-5)

Exposure route :	Oral
Species :	Rat
Effective dose :	> 2000 mg/kg
Parameter :	LC50 (REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-(CHLOROMETHYL)OXIRANE ; CAS No. : 933999-84-9)
Exposure route :	Oral
Species :	Rat
Effective dose :	2190 mg/kg

Acute dermal toxicity

Parameter :	LD50 (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; CAS No. : 9003-36-5)
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 2000 mg/kg
Parameter :	LC50 (REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-(CHLOROMETHYL)OXIRANE ; CAS No. : 933999-84-9)
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 2000 mg/kg

Respiratory or skin sensitisation

EUH205 - Contains epoxy constituents. May produce an allergic reaction. Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. Risk of serious damage to eyes. Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

Skin sensitisation

Parameter :	Skin sensitisation (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; CAS No. : 9003-36-5)
Species :	Guinea pig
Effective dose :	50 %
Result :	Sensitising.
Method :	OECD 406

Practical experience/human evidence

Causes skin irritation. Causes serious eye irritation.

11.2 Information on other hazards

No information available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	Acute (short-term) fish toxicity (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; CAS No. : 9003-36-5)
Species :	Acute (short-term) fish toxicity
Effective dose :	2,54 mg/l
Exposure time :	96 h
Parameter :	LC50 (REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-(CHLOROMETHYL)OXIRANE ; CAS No. : 933999-84-9)
Species :	Leuciscus idus (golden orfe)
Effective dose :	30 mg/l
Exposure time :	96 h
Parameter :	EC50 (REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-(CHLOROMETHYL)OXIRANE ; CAS No. : 933999-84-9)
Species :	Algae
Effective dose :	23,1 mg/l

Exposure time :	48 h
Parameter :	EC50 (REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-(CHLOROMETHYL)OXIRANE ; CAS No. : 933999-84-9)
Species :	Daphnia magna (Big water flea)
Effective dose :	47 mg/l
Exposure time :	48 h
Parameter :	LC50 (2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; CAS No. : 70969-70-9)
Species :	Oncorhynchus mykiss (Rainbow trout)
Effective dose :	> 40000 mg/l
Exposure time :	96 h
Parameter :	LC50 (2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; CAS No. : 70969-70-9)
Species :	Ceriodaphnia spec
Effective dose :	> 18000 mg/l
Exposure time :	48 h
Parameter :	EC50 (2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; CAS No. : 70969-70-9)
Species :	Daphnia magna (Big water flea)
Effective dose :	> 10000 mg/l
Exposure time :	48 h

Acute (short-term) toxicity to algae and cyanobacteria

Parameter :	ErC50 (2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; CAS No. : 70969-70-9)
Species :	Pseudokirchneriella subcapitata
Effective dose :	19000 mg/l
Exposure time :	96 h

12.2 Persistence and degradability

Biodegradation

Parameter :	Biodegradation (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL ; CAS No. : 9003-36-5)
Inoculum :	Biodegradation
Degradation rate :	16 %
Test duration :	28
Evaluation :	Not readily biodegradable (according to OECD criteria)
Method :	OECD 301B
Parameter :	Biodegradation (2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; CAS No. : 70969-70-9)
Inoculum :	Biodegradation
Degradation rate :	81 %
Test duration :	1 month(s)
Parameter :	Biodegradation (2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; CAS No. : 70969-70-9)
Inoculum :	Biodegradation
Degradation rate :	96 %
Test duration :	2 month(s)

12.3 Bioaccumulative potential

Parameter :	Bioconcentration factor (BCF) (2-ETHYLHEXYL-3,5,5-TRIMETHYLHEXANOATE ; CAS No. : 70969-70-9)
	Bioconcentration factor (BCF)
Value :	approx. 0,09

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

12.8 Additional ecotoxicological information

The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3). Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No information available.

SECTION 14: Transport information

14.1 UN number or ID number

UN 3082

14.2 UN proper shipping name

Land transport (ADR/RID)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL)

Sea transport (IMDG)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL)

Air transport (ICAO-TI / IATA-DGR)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) :	9
Classification code :	M6
Hazard identification number (Kemler No.) :	90
Tunnel restriction code :	-
Special Provisions :	LQ 5 l · E 1 · ADR : - (SP 375 <= 5 l/kg)
Hazard label(s) :	9 / N

Sea transport (IMDG)

Class(es) :	9
EmS-No. :	F-A / S-F
Special Provisions :	LQ 5 l · E 1 · IMDG : - (SP 2.10.2.7 <= 5 l/kg)
Hazard label(s) :	9 / N

Air transport (ICAO-TI / IATA-DGR)

Class(es) :	9
Special Provisions :	E 1 · IATA : - (SP A197 <= 5 l/kg)
Hazard label(s) :	9 / N

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : Yes
Sea transport (IMDG) : Yes (P)
Air transport (ICAO-TI / IATA-DGR) : Yes

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no. : 3, 40, 70, 75

National regulations

EU limit value for this product (cat. A/j): 500 g/l (2010).This product contains max: < 500 g/l

Other regulations, restrictions and prohibition regulations

Denmark

MAL Code

MAL Code : 5-5

Additional information

Substance/product listed in the following inventories

Substance/product listed in the following inventories TSCA • EINECS/ELINCS • REACH

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

16.1 Indication of changes

02. Label elements · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] - Hazard components for labelling · 03. Hazardous ingredients · 14. UN proper shipping name - Land transport (ADR/RID) · 14. UN proper shipping name - Sea transport (IMDG) · 14. UN proper shipping name - Air transport (ICAO-TI / IATA-DGR) · 15. Restrictions on use

16.2 Abbreviations and acronyms

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM = American Society of Testing and Materials (US)
CAS No = Chemical Abstracts Service Number (see ACS - American Chemical Society)
DNEL = Derived No-Effect Level
DT50 = Time for 50% loss; half-life
EbC50 = Median effective concentration (biomass, e.g. of algae)
EC50 = Median effective concentration
EINECS = European Inventory of Existing Commercial Chemical Substan
ELINCS = European List of Notified (New) Chemicals (see Tab 7, Background - Guide)
ErC50 = Median effective concentration (growth rate, e.g. of algae)
EWC = European Waste Catalogue
IATA = International Air Transport Association
IC50 = Concentration that produces 50% inhibition
IMDG = International Maritime Dangerous Goods Code
IMO = International Maritime Organization
LC50 = Concentration required to kill 50% of test organisms
LD50 = Dose required to kill 50% of test organisms
LEL = Lower Explosive Limit/Lower Explosion Limit
LOAEL = Lowest observed adverse effect level
MRL = Maximum Residue Limit
NOAEL = No Observed Adverse Effect Level
NOEC = No observed effect concentration
NOEL = No Observable Effect Level
OEL = Occupational Exposure Limits
PBT = Persistent, Bioaccumulative or Toxic
PNEC = Previsible Non Effect Concentration
STEL = Short-Term Exposure Limit

TWA = Time-Weighted Average
vPvB = Very Persistent and Very Bioacccumulative

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

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

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer if inhaled.
H360F	May damage fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16.6 Training advice

The regulations of the national employment safety and employment protection commission about the handling for polyurethane/epoxy have to be observed.

16.7 Additional information

This safety data sheet contains more than one ES in an integrated form. Contents of the exposure scenarios have been included into sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

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.

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

1.1 Product identifier

Wencon CS HI-Build - Component B (185000160B)
PR-number (Danish): 4505955

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

Solventfree two component coating based on epoxy

Relevant identified uses

In compliance with the conditions described in the annex to this safety data sheet. See section 16 for a comprehensive list of uses, for which an exposure scenarion is provided as an annex.

Sectors of use [SU]

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories [PROC]

PROC 10 - Roller application or brushing
PROC 19 - Manual activities involving hand contact
PROC 21 - Low energy manipulation of substances bound in materials and/or articles
PROC 24 - High (mechanical) energy work-up of substances bound in/on materials and/or articles

Environmental release categories [ERC]

ERC 8c - Widespread use leading to inclusion into/onto article (indoor)
ERC 8f - Widespread use leading to inclusion into/onto article (outdoor)
ERC 10a - Widespread use of articles with low release (outdoor)
ERC 11a - Widespread use of articles with low release (indoor)

Article categories [AC]

AC 7 - Metal articles

Uses advised against

Do not use for private purposes (household).

Remark

The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer) : Wencon ApS
Street : Jyllandsvej 15
Postal code/City : DK-5400 BOGENSE
Telephone : +45 6481 1010
Information contact : wencon@wencon.com

1.4 Emergency telephone number

+44 870 600 62 66 (UK National Poisons Emergency Number)
European emergency number: 112. Danmark: (Giftlinjen +45 82 12 12 12), only for the purpose of informing medical personnel in cases of acute intoxications.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Acute Tox. 4 ; H302 - Acute toxicity (oral) : Category 4 ; Harmful if swallowed.
Skin Corr. 1B ; H314 - Skin corrosion/irritation : Category 1B ; Causes severe skin burns and eye damage.
Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.
Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.
STOT RE 2 ; H373 - STOT-repeated exposure : Category 2 ; May cause damage to organs through prolonged or repeated exposure.
Aquatic Acute 1 ; H400 - Hazardous to the aquatic environment : Acute 1 ; Very toxic to aquatic life.

Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Chronic 2 ; Toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms



Health hazard (GHS08) · Corrosion (GHS05) · Environment (GHS09) · Exclamation mark (GHS07)

Signal word

Danger

Hazard components for labelling

2-PROPENENITRILE, REACTION PRODUCTS WITH ETHYLENEDIAMINE, HYDROGENATED, REACTION PRODUCTS WITH BENZALDEHYDE, DIETHYLENETRIAMINE AND TRIETHYLENETETRAMINE, HYDROGENATED ; CAS No. : 1173092-74-4
PHENOL, REACTION PRODUCTS WITH FORMALDEHYDE ; CAS No. : 9003-35-4
3-AMINOPROPYLDIETHYLAMINE ; CAS No. : 104-78-9
TRIETHYLENETETRAMINE ; CAS No. : 90640-67-8
2-PIPERAZIN-1-YLETHYLAMINE ; CAS No. : 140-31-8
1,3 BENZENEDIMETHANAMINE REACTIONS PRODUCTS WITH STYRENE ; CAS No. : 404362-22-7
REACTION MASS OF (1-PHENYLETHYL)PHENOLS AND BIS-(1-PHENYLETHYL)PHENOLS
4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH TRIETHYLENETETRAMINE ; CAS No. : 38294-69-8
BIS(DIMETHYLAMINO)METHYLPHENOL ; CAS No. : 71074-89-0

Hazard statements

H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P310	Immediately call a POISON CENTER.
P321	Specific treatment (see supplemental first aid instructions on this label).
P405	Store locked up.

2.3 Other hazards

Adverse human health effects and symptoms

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse environmental effects

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

2-PROPENENITRILE, REACTION PRODUCTS WITH ETHYLENEDIAMINE, HYDROGENATED, REACTION PRODUCTS WITH

BENZALDEHYDE, DIETHYLENETRIAMINE AND TRIETHYLENETETRAMINE, HYDROGENATED ; EC No. : 630-554-4; CAS No. : 1173092-74-4

Weight fraction : ≥ 25 - < 30 %

Classification 1272/2008 [CLP] : STOT RE 2 ; H373 Skin Corr. 1C ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Sens. 1 ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 2 ; H411

POLYOXYPROPYLENE DIAMINE ; REACH No. : 01-2119557899-12 ; EC No. : 618-561-0; CAS No. : 9046-10-0

Weight fraction : ≥ 20 - < 25 %

Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Aquatic Chronic 3 ; H412

PHENOL, REACTION PRODUCTS WITH FORMALDEHYDE ; REACH No. : 01-2120735197-51 ; EC No. : 500-005-2; CAS No. : 9003-35-4

Weight fraction : ≥ 5 - < 10 %

Classification 1272/2008 [CLP] : Skin Sens. 1 ; H317 Eye Irrit. 2 ; H319

TITANIUM DIOXIDE ; EC No. : 236-675-5; CAS No. : 13463-67-7

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Carc. 2 ; H351 (Inhalation)

3-AMINOPROPYLDIETHYLAMINE ; REACH No. : 01-2119965402-39 ; EC No. : 203-236-4; CAS No. : 104-78-9

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H312 Skin Sens. 1 ; H317

TRIETHYLENETETRAMINE ; REACH No. : 01-2119487919-13 ; EC No. : 292-588-2; CAS No. : 90640-67-8

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H312 Skin Sens. 1 ; H317 Aquatic Chronic 3 ; H412

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL ; REACH No. : 01-211950597-27 ; EC No. : 202-013-9; CAS No. : 90-72-2

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319

2-PIPERAZIN-1-YLETHYLAMINE ; REACH No. : 01-2119471486-30 ; EC No. : 205-411-0; CAS No. : 140-31-8

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Acute Tox. 3 ; H311 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Sens. 1 ; H317 Aquatic Chronic 3 ; H412

1,3-CYCLOHEXANEDIMETHANAMINE ; REACH No. : 01-2119543741-41 ; EC No. : 219-941-5; CAS No. : 2579-20-6

Weight fraction : ≥ 1 - < 5 %

Classification 1272/2008 [CLP] : Skin Corr. 1A ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H312 Aquatic Chronic 3 ; H412

1,3 BENZENEDIMETHANAMINE REACTIONS PRODUCTS WITH STYRENE ; EC No. : 609-828-2; CAS No. : 404362-22-7

Weight fraction : ≥ 0,5 - < 1 %

Classification 1272/2008 [CLP] : STOT RE 2 ; H373 Skin Corr. 1B ; H314 Acute Tox. 4 ; H302 Skin Sens. 1 ; H317 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

REACTION MASS OF (1-PHENYLETHYL)PHENOLS AND BIS-(1-PHENYLETHYL)PHENOLS ; REACH No. : 01-2119980970-27 ; EC No. : 701-443-9

Weight fraction : ≥ 0,5 - < 1 %

Classification 1272/2008 [CLP] : Skin Irrit. 2 ; H315 Skin Sens. 1A ; H317 Aquatic Chronic 2 ; H411

SALICYLIC ACID ; REACH No. : 01-2119486984-17 ; EC No. : 200-712-3; CAS No. : 69-72-7

Weight fraction : ≥ 0,5 - < 1 %

Classification 1272/2008 [CLP] : Repr. 2 ; H361d Eye Dam. 1 ; H318 Acute Tox. 4 ; H302

4,4'-ISOPROPYLIDENEDIPHENOL, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE, REACTION PRODUCTS WITH TRIETHYLENETETRAMINE ; REACH No. : POLYMER ; EC No. : 500-104-0; CAS No. : 38294-69-8

Weight fraction : ≥ 0,5 - < 1 %

Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Sens. 1 ; H317

BIS(DIMETHYLAMINO)METHYLPHENOL ; REACH No. : 01-2119560597-27 ; EC No. : 275-162-0; CAS No. : 71074-89-0

Weight fraction : < 0,5 %

Classification 1272/2008 [CLP] : Skin Corr. 1C ; H314 Eye Dam. 1 ; H318 Skin Sens. 1B ; H317

Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately. If unconscious but breathing normally, place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

In case of skin contact

In case of skin reactions, consult a physician. Immediately remove any contaminated clothing, shoes or stockings. After contact with skin, wash immediately with plenty of water and soap. Do not use force or solvents to remove product incrustations from affected skin areas. Do not let product dry on skin.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Keep at rest.

Self-protection of the first aider

First aider: Pay attention to self-protection!

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

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam

Unsuitable extinguishing media

Water spray jet

5.2 Special hazards arising from the substance or mixture

Burning produces heavy smoke. Use suitable breathing apparatus.

Hazardous combustion products

Carbon monoxide

5.3 Advice for firefighters

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

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Do not breathe gas/fumes/vapour/spray. Remove all sources of ignition. Provide adequate ventilation. Remove persons to safety. Use personal protection equipment. See protective measures under point 7 and 8.

For emergency responders

Do not breathe gas/fumes/vapour/spray. Use personal protection equipment. See protective measures under point 7 and 8.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Ensure waste is collected and contained.

6.3 Methods and material for containment and cleaning up

For containment

Ensure waste is collected and contained.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation. Clean with detergents. Avoid solvent cleaners. Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

None

SECTION 7: Handling and storage



7.1 Precautions for safe handling

Protective measures

Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used. It is recommended to design all work processes always so that the following is excluded: Inhalation of vapours or spray/mists Skin contact Eye contact Do not breathe gas/fumes/vapour/spray. When using do not eat, drink, smoke, sniff. Wear personal protection equipment (refer to section 8). Never use pressure to empty container. Use only in well-ventilated areas.

Measures to prevent fire

Keep away from sources of ignition - No smoking.

Environmental precautions

Do not allow to enter into surface water or drains.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Only use containers specifically approved for the substance/product. Keep/Store only in original container. Keep container tightly closed.

Hints on joint storage

Keep away from:

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place. Store in a place accessible by authorized persons only. Handle and open container with care.

7.3 Specific end use(s)

Observe instructions for use. The regulations of the national employment safety and employment protection commission about the handling for polyurethane/epoxy have to be observed.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

None

8.2 Exposure controls

Personal protection equipment



Eye/face protection

Suitable eye protection

Eye glasses with side protection

Skin protection

Hand protection

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Wear cotton undermitten if possible.

Suitable gloves type : Disposable gloves.

Suitable material : NBR (Nitrile rubber)

Required properties : liquid-tight.

Breakthrough time : > 60 minutes

Thickness of the glove material : > 0.5 mm

Recommended glove articles : EN 374

Additional hand protection measures : Do not wear gloves near rotary machines and tools. Check leak tightness/impermeability prior to use. Wear cotton undermitten if possible. Use gloves only once. Take recovery periods for skin regeneration.

Remark : For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Observe the wear time limits as specified by the manufacturer. Breakthrough times and swelling properties of the material must be taken into consideration. In the case of wanting to use the gloves again, clean them before taking off and air them well. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Barrier creams are not substitutes for body protection.

Body protection

Remark : Body protection: not required.

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Suitable respiratory protection apparatus

Combination filtering device Filtering device (EN 147) Full-/half-/quarter-face masks (EN 136/140) Filtering Half-face mask (EN 149) Particle filter device (EN 143).
Filtering device (full mask or mouthpiece) with filter: A P

Additional measures for respiratory protection

Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m3 (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m^3 (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m^3 (1.0 % by vol.) Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo. Full-face mask or mouthpiece with particulate filter: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 15 times the exposure limit. P3 filter: up to a max. of

Remark

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, self-contained breathing apparatus must be used.

General information

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Immediately remove any contaminated clothing, shoes or stockings.

Other protection measures

Further information: see technical data sheet.
Further information: see technical data sheet.
Further information: see technical data sheet.
Technical measures and the application of suitable work processes have priority over personal protection equipment. See section 7. No additional measures necessary.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Liquid

Appearance

Colour : white

Odour

Amines

Safety characteristics

Flash point :		>	150	°C	DIN 53213-1
Evaporation rate :		<	1		
Vapour pressure :	(50 °C)	<	1000	hPa	
Density :	(20 °C)	approx.	1,25	g/cm³	DIN 53217
pH :			8 - 11		
Viscosity :	(20 °C)	approx.	1250	mPa*s	
Melting point/freezing point :	not applicable				
Initial boiling point and boiling range :	No data available				
Decomposition temperature :	No data available				
Auto-ignition temperature :	No data available				
Flammable gases :	Not applicable.				
Flammable solids :	Not applicable.				
Oxidising properties.	No data available.				
Lower explosion limit :	No data available				
Upper explosion limit :	No data available				
Explosive properties :	No data available.				
Relative vapour density :	No data available				
Water solubility :	practically insoluble				
Partition coefficient n-octanol/water :	No data available				
Flow time :	not determined				
Kinematic viscosity :	No data available				
Odour threshold :	No data available				
- 2-PIPERAZIN-1-YLETHYLAMINE; CAS No. : 140-31-8					
Initial boiling point and boiling range :	(1000 hPa)		220	°C	

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid
Ignition hazard.

10.5 Incompatible materials
No information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Acute toxicity
Acute oral toxicity

Parameter :	LD50 (POLYOXYPROPYLENE DIAMINE ; CAS No. : 9046-10-0)
Exposure route :	Oral
Species :	Rat
Effective dose :	580 mg/kg
Parameter :	LD50 (2-PIPERAZIN-1-YLETHYLAMINE ; CAS No. : 140-31-8)
Exposure route :	Oral
Species :	Rat
Effective dose :	1470 mg/kg
Parameter :	LD50 (1,3-CYCLOHEXANEDIMETHANAMINE ; CAS No. : 2579-20-6)
Exposure route :	Oral
Species :	Rat
Effective dose :	1200 mg/kg
Parameter :	LD50 (SALICYLIC ACID ; CAS No. : 69-72-7)
Exposure route :	Oral
Species :	Rat
Effective dose :	891 mg/kg

Acute dermal toxicity

Parameter :	LD50 (POLYOXYPROPYLENE DIAMINE ; CAS No. : 9046-10-0)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	670 mg/kg
Parameter :	LD50 (2-PIPERAZIN-1-YLETHYLAMINE ; CAS No. : 140-31-8)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	880 mg/kg
Parameter :	LD50 (1,3-CYCLOHEXANEDIMETHANAMINE ; CAS No. : 2579-20-6)
Exposure route :	Dermal
Species :	Rat
Effective dose :	2000 mg/kg

Respiratory or skin sensitisation
Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.

Skin sensitisation

Practical experience/human evidence

Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness,

blistering, dermatitis, etc. Causes burns. Causes serious eye damage.

11.2 Information on other hazards

No information available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Aquatic toxicity

Acute (short-term) toxicity to algae and cyanobacteria

Parameter :	EC50 (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL ; CAS No. : 90-72-2)
Species :	Daphnia magna (Big water flea)
Effective dose :	41,3 mg/l
Exposure time :	48 h
Parameter :	EC50 (2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL ; CAS No. : 90-72-2)
Species :	Algae
Evaluation parameter :	Acute (short-term) toxicity to algae and cyanobacteria
Effective dose :	84 mg/l
Exposure time :	72 h

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

12.8 Additional ecotoxicological information

The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3). Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No information available.

SECTION 14: Transport information

14.1 UN number or ID number

UN 2735

14.2 UN proper shipping name

Land transport (ADR/RID)

POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-PROPENENITRILE, REACTION PRODUCTS WITH ETHYLENEDIAMINE, HYDROGENATED, REACTION PRODUCTS WITH BENZALDEHYDE, DIETHYLENETRIAMINE AND TRIETHYLENETETRAMINE, HYDROGENATED · POLYOXYPROPYLENE DIAMINE)

Sea transport (IMDG)

POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-PROPENENITRILE, REACTION PRODUCTS WITH ETHYLENEDIAMINE, HYDROGENATED, REACTION PRODUCTS WITH BENZALDEHYDE, DIETHYLENETRIAMINE AND

TRIETHYLENETETRAMINE, HYDROGENATED · POLYOXYPROPYLENE DIAMINE)

Air transport (ICAO-TI / IATA-DGR)

POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2-PROPENENITRILE, REACTION PRODUCTS WITH ETHYLENEDIAMINE, HYDROGENATED, REACTION PRODUCTS WITH BENZALDEHYDE, DIETHYLENETRIAMINE AND TRIETHYLENETETRAMINE, HYDROGENATED · POLYOXYPROPYLENE DIAMINE)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) :	8
Classification code :	C7
Hazard identification number (Kemler No.) :	80
Tunnel restriction code :	E
Special Provisions :	LQ 1 l · E 2
Hazard label(s) :	8 / N

Sea transport (IMDG)

Class(es) :	8
EmS-No. :	F-A / S-B
Special Provisions :	LQ 1 l · E 2 · IMDG-Code segregation group 18 - Alkalis
Hazard label(s) :	8 / N

Air transport (ICAO-TI / IATA-DGR)

Class(es) :	8
Special Provisions :	E 2
Hazard label(s) :	8

14.4 Packing group

II

14.5 Environmental hazards

Land transport (ADR/RID) : Yes
Sea transport (IMDG) : Yes (P)
Air transport (ICAO-TI / IATA-DGR) : Yes

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no. : 3, 75

National regulations

EU limit value for this product (cat. A/j): 500 g/l (2010).This product contains max: < 500 g/l

Other regulations, restrictions and prohibition regulations

Denmark

MAL Code

MAL Code : 4-5

Additional information

Substance/product listed in the following inventories

Substance/product listed in the following inventories TSCA • EINECS/ELINCS • REACH

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

16.1 Indication of changes

02. Classification of the substance or mixture · 02. Label elements · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 03. Hazardous ingredients · 14. UN proper shipping name - Sea transport (IMDG)

16.2 Abbreviations and acronyms

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM = American Society of Testing and Materials (US)
CAS No = Chemical Abstracts Service Number (see ACS - American Chemical Society)
DNEL = Derived No-Effect Level
DT50 = Time for 50% loss; half-life
EbC50 = Median effective concentration (biomass, e.g. of algae)
EC50 = Median effective concentration
EINECS = European Inventory of Existing Commercial Chemical Substan
ELINCS = European List of Notified (New) Chemicals (see Tab 7, Background - Guide)
ErC50 = Median effective concentration (growth rate, e.g. of algae)
EWC = European Waste Catalogue
IATA = International Air Transport Association
IC50 = Concentration that produces 50% inhibition
IMDG = International Maritime Dangerous Goods Code
IMO = International Maritime Organization
LC50 = Concentration required to kill 50% of test organisms
LD50 = Dose required to kill 50% of test organisms
LEL = Lower Explosive Limit/Lower Explosion Limit
LOAEL = Lowest observed adverse effect level
MRL = Maximum Residue Limit
NOAEL = No Observed Adverse Effect Level
NOEC = No observed effect concentration
NOEL = No Observable Effect Level
OEL = Occupational Exposure Limits
PBT = Persistent, Bioaccumulative or Toxic
PNEC = Previsible Non Effect Concentration
STEL = Short-Term Exposure Limit
TWA = Time-Weighted Average
vPvB = Very Persistent and Very Bioacccumulative

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

No information available.

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

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer if inhaled.
H361d	Suspected of damaging the unborn child.

H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16.6 Training advice

The regulations of the national employment safety and employment protection commission about the handling for polyurethane/epoxy have to be observed.

16.7 Additional information

This safety data sheet contains more than one ES in an integrated form. Contents of the exposure scenarios have been included into sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

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.