

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 1 of 15

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

1.1. Product identifier

ARC HT-T(E) Part B

UFI: Y9TD-TTFU-FD0T-XV9U

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

Use of the substance/mixture

ARC Polymer Composite to be mixed with ARC HT-T(E) (Part B) to provide a corrosion resistant coating for hot water/steam environment.

Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Company name:	Chesterton International GmbH	
Street:	Am Lenzenfleck 23	
Place:	D-85737 Ismaning GERMANY	
Telephone:	+49 89 99 65 46 - 0	Telefax: +49 89 99 65 46 - 50
e-mail:	eu-sds@chesterton.com	
e-mail (Contact person):	eu-sds@chesterton.com	
Internet:	www.chesterton.com	
Responsible Department:	eu-sds@chesterton.com	

1.4. Emergency telephone

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Tox. 4; H302
Skin Corr. 1; H314
Eye Dam. 1; H318
Skin Sens. 1; H317
STOT RE 2; H373
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Copolymer of benzenamine and formaldehyde, hydrogenated
4,4'-methylenebis(cyclohexylamine)
3,6-diazaoctanethylenediamin; triethylenetetramine

Signal word: Danger

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 2 of 15

Pictograms:



Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful 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.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 3 of 15

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated			45 - < 50 %
	603-894-6		01-2119983522-33	
	Acute Tox. 3, Skin Corr. 1, Eye Dam. 1, Skin Sens. 1, STOT RE 2, Aquatic Chronic 3; H301 H314 H318 H317 H373 H412			
1761-71-3	4,4'-methylenebis(cyclohexylamine)			45 - < 50 %
	217-168-8		01-2119541673-38	
	Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, STOT RE 2; H302 H314 H318 H317 H373			
112-24-3	3,6-diazaoctanethylenediamin; triethylenetetramine			1 - < 5 %
	203-950-6	612-059-00-5		
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H312 H302 H314 H318 H317 H412			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
135108-88-2	603-894-6	Copolymer of benzenamine and formaldehyde, hydrogenated	45 - < 50 %
		dermal: LD50 = > 1000 mg/kg; oral: LD50 = 300 mg/kg	
1761-71-3	217-168-8	4,4'-methylenebis(cyclohexylamine)	45 - < 50 %
		dermal: LD50 = 2110 mg/kg; oral: LD50 = 480 mg/kg	
112-24-3	203-950-6	3,6-diazaoctanethylenediamin; triethylenetetramine	1 - < 5 %
		dermal: LD50 = 805 mg/kg; oral: LD50 = 2500 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Immediately call a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin irritation, consult a physician.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 4 of 15

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let 1 glass of water be drunken in little sips (dilution effect).

Do NOT induce vomiting.

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

Processing vapours can irritate the respiratory tracts, skin and eyes. Ingestion causes nausea, weakness and central nervous system effects.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

- alcohol resistant foam
- Water spray jet
- Carbon dioxide (CO₂)
- Dry extinguishing powder

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated:

- Carbon monoxide,
- Carbon dioxide (CO₂).
- Nitrogen oxides (NO_x),

5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings.

In case of fire: Wear self-contained breathing apparatus.

Special protective equipment for firefighters: Protective clothing.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 5 of 15

General advice

Wear personal protection equipment (refer to section 8).
Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. When using do not eat, drink or smoke.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Adverse environmental effects

6.3. Methods and material for containment and cleaning up

For containment

Take up mechanically, placing in appropriate containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear personal protection equipment (refer to section 8).
Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. When using do not eat, drink or smoke. Never use pressure to empty container. Keep/Store only in original container. Do not allow to enter into surface water or drains.

Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary.

Use protective skin cream before handling the product.

Further information on handling

Wash hands before breaks and after work. Used working clothes should not be worn outside the work area. Street clothing should be stored separately from work clothing.

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/Store only in original container.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Keep away from:
- Frost

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 6 of 15

- Heat
- Humidity

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated			
Worker DNEL, long-term	inhalation	systemic		0,2 mg/m ³
Worker DNEL, acute	inhalation	systemic		2 mg/m ³
Worker DNEL, long-term	dermal	systemic		2 mg/kg bw/day
Worker DNEL, acute	dermal	systemic		6 mg/kg bw/day
1761-71-3	4,4'-methylenebis(cyclohexylamine)			
Worker DNEL, long-term	inhalation	systemic		0,13 mg/m ³
Worker DNEL, long-term	dermal	systemic		0,053 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic		0,21 mg/m ³
Consumer DNEL, long-term	dermal	systemic		0,06 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic		0,06 mg/kg bw/day

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 7 of 15

PNEC values

CAS No	Substance	
	Environmental compartment	Value
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated	
	Freshwater	0,015 mg/l
	Freshwater (intermittent releases)	0,15 mg/l
	Marine water	0,002 mg/l
	Freshwater sediment	15 mg/kg
	Marine sediment	1,5 mg/kg
	Micro-organisms in sewage treatment plants (STP)	1,9 mg/l
	Soil	1,8 mg/kg
1761-71-3	4,4'-methylenebis(cyclohexylamine)	
	Freshwater	0,08 mg/l
	Freshwater (intermittent releases)	0,08 mg/l
	Marine water	0,008 mg/l
	Freshwater sediment	136,6 mg/kg
	Marine sediment	13,7 mg/kg
	Secondary poisoning	0,556 mg/kg
	Micro-organisms in sewage treatment plants (STP)	3,2 mg/l
	Soil	27,3 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment

Eye/face protection

- Eye glasses with side protection
- Eye glasses with side protection,
- goggles

Hand protection

Tested protective gloves must be worn: EN ISO 374

NBR (Nitrile rubber)

Wearing time with permanent contact: Thickness of the glove material: $\geq 0,4$ mm, Breakthrough time: >480 min

Wearing time with occasional contact (splashes): Thickness of the glove material: $\geq 0,1$ mm, Breakthrough time: > 30 min

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.

Breakthrough times and swelling properties of the material must be taken into consideration.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 8 of 15

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Combination filtering device A-P2

Thermal hazards

No data available

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

Physical state:	viscous	
Colour:	transparent	
Odour:	characteristic	
Melting point/freezing point:		No data available
Flammability		
Solid/liquid:		No data available
Gas:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		>100 °C
Decomposition temperature:		No data available
pH-Value:		No data available
Water solubility:		Immiscible
Solubility in other solvents		
No information available.		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Density (at 23 °C):		1,0 g/cm ³
Relative vapour density:		No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No information available.

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No information available.

Other safety characteristics

Evaporation rate:

No data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 9 of 15

Viscosity / dynamic:
(at 23 °C)

~ 2000 mPa·s

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

- Strong acid
- Oxidising agent, strong

10.6. Hazardous decomposition products

Nitric acid, Nitrogen oxides (NO_x), Carbon monoxide, Carbon dioxide (CO₂), Gases/vapours, toxic

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed.

ATE_{mix} calculated

ATE (oral) 371,2 mg/kg; ATE (dermal) 55110,2 mg/kg

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 10 of 15

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated				
	oral	LD50 300 mg/kg	Rat	Study report (2005)	OECD Guideline 423
	dermal	LD50 > 1000 mg/kg	Rabbit	Study report (1988)	other: 40CFR Part 158 Series 81-2, EPA P
1761-71-3	4,4'-methylenebis(cyclohexylamine)				
	oral	LD50 480 mg/kg	Rat	Study report (1987)	EPA OPP 81-1
	dermal	LD50 2110 mg/kg	Rabbit	Study report (1986)	EPA OPP 81-2
112-24-3	3,6-diazaoctanethylenediamin; triethylenetetramine				
	oral	LD50 2500 mg/kg	Rat		
	dermal	LD50 805 mg/kg	Rabbit		

Irritation and corrosivity

Causes severe skin burns and eye damage.
Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (Copolymer of benzenamine and formaldehyde, hydrogenated; 4,4'-methylenebis(cyclohexylamine); 3,6-diazaoctanethylenediamin; triethylenetetramine)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Copolymer of benzenamine and formaldehyde, hydrogenated; 4,4'-methylenebis(cyclohexylamine))

Aspiration hazard

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

11.2. Information on other hazards

Endocrine disrupting properties

No data available

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 11 of 15

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated					
	Acute fish toxicity	LC50 63 mg/l	96 h	Poecilia reticulata	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l 43,94	72 h	Desmodesmus subspicatus	Study report (2012)	EU Method C.3
1761-71-3	4,4'-methylenebis(cyclohexylamine)					
	Acute fish toxicity	LC50 mg/l > 100	96 h	Leuciscus idus	REACH Registration Dossier	other: German industrial standard test g
	Acute algae toxicity	ErC50 mg/l 140 - 200	72 h		Study report (1990)	other: German Industrial Standard DIN 38
	Acute crustacea toxicity	EC50 mg/l 9,24	48 h	Daphnia magna	REACH Registration Dossier	other: Directive 79/831/EEC, Annex V, Pa
	Fish toxicity	NOEC > 1 mg/l	14 d	freshwater fish	REACH Registration Dossier	Estimation of a chronic NOEC according t
	Crustacea toxicity	NOEC 4 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211
	Acute bacteria toxicity	(EC50 mg/l) ca. 156	0,5 h	Pseudomonas putida	REACH Registration Dossier	other: German Industrial Standard DIN 38
112-24-3	3,6-diazaoctanethylenediamin; triethylenetetramine					
	Acute algae toxicity	ErC50 mg/l > 100	72 h			
	Acute crustacea toxicity	EC50 92 mg/l	48 h	Daphnia magna		

12.2. Persistence and degradability

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
1761-71-3	4,4'-methylenebis(cyclohexylamine)				
	OECD 302B/ ISO 9888/ EEC 92/69/V, C.9	<10%	28		

12.3. Bioaccumulative potential

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 12 of 15

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated	2,68
1761-71-3	4,4'-methylenebis(cyclohexylamine)	2,03
112-24-3	3,6-diazaoctanethylenediamin; triethylenetetramine	-1,66

BCF

CAS No	Chemical name	BCF	Species	Source
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated	> 18 - < 22	Cyprinus carpio	Study report (1997)
1761-71-3	4,4'-methylenebis(cyclohexylamine)	< 6	Cyprinus carpio	REACH Registration D

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

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

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Cycloaliphatic Amine)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Classification code:	C7
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 13 of 15

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Cycloaliphatic Amine)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Classification code:	C7
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Cycloaliphatic Amine)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B
Segregation group:	18 - alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 2735
14.2. UN proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Cycloaliphatic Amine)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Special Provisions:	A3 A803
Limited quantity Passenger:	1 L
Passenger LQ:	Y841
Excepted quantity:	E1
IATA-packing instructions - Passenger:	852
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	856
IATA-max. quantity - Cargo:	60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 14 of 15

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

National regulatory information

Water hazard class (D): 3 - highly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Copolymer of benzenamine and formaldehyde, hydrogenated

4,4'-methylenebis(cyclohexylamine)

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,4,5,6,7,8,10,11,12,14,15.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer

(Regulations Concerning the International Transport of Dangerous Goods by Rail)

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)

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARC HT-T(E) Part B

Revision date: 01.11.2022

Page 15 of 15

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

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

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Skin Corr. 1; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

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