Safety Data Sheet

according to Regulation (EC) No 1907/2006

and Regulation (EC) 2020/878

ARC S1HB(E) Part B

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

1.1. Product identifier

ARC S1HB(E) Part B

UFI: UXAK-E158-Q2RW-9688

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

Use of the substance/mixture

For use as a high build coating on properly prepared surface where mild chemical and abrasion exposures are anticipated.

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		
Contact person:	eu-sds@chesterton.com	Telephone:	+49 89 99 65 46 - 0
E-mail:	eu-sds@chesterton.com		
Internet:	www.chesterton.com		
Responsible Department:	eu-sds@chesterton.com		

1.4. Emergency telephone number:

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

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 SE 3; H335
STOT RE 2; H373
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

Hazard components for labelling

Feldspar
Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine
Formaldehyde, polymer with benzenamine, hydrogenated
benzyl alcohol
Amines, polyethylenepoly-, tetraethylenepentamine fraction
N-(3-(trimethoxysilyl)propyl)ethylenediamine

Signal word: Danger

Pictograms:



Hazard statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very 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.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P312	Call a POISON CENTER/doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.

2.3. Other hazards

The safety and health hazards are detailed separately for Part A and Part B. The final cured material is considered nonhazardous. Upon machining, refer to the precautions in the safety data sheets for Part A and Part B.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
68476-25-5	Feldspar			25 - < 30 %
	270-666-7			
	STOT SE 3; H335			
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine			25 - < 30 %
	629-725-6		01-2119487006-38	
	Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 1; H314 H318 H317 H400 H410			
135108-88-2	Formaldehyde, polymer with benzenamine, hydrogenated			20 - < 25 %
	603-894-6		01-2119983522-33	
	Acute Tox. 4, Skin Corr. 1, Skin Sens. 1, STOT RE 2, Aquatic Chronic 3; H302 H314 H317 H373 H412			
100-51-6	benzyl alcohol			15 - < 20 %
	202-859-9	603-057-00-5	01-2119492630-38	
	Acute Tox. 4, Eye Irrit. 2, Skin Sens. 1B; H302 H319 H317			
90640-66-7	Amines, polyethylenepoly-, tetraethylenepentamine fraction			5 - < 10 %
	292-587-7		01-2119487290-37	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 2; H312 H302 H314 H318 H317 H411			
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine			< 1 %
	217-164-6		01-2119970215-39	
	Acute Tox. 4, Eye Dam. 1, Skin Sens. 1, STOT RE 2; H332 H318 H317 H373			

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		
1226892-45-0	629-725-6	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine	25 - < 30 %
	oral: LD50 = > 2000 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1		
135108-88-2	603-894-6	Formaldehyde, polymer with benzenamine, hydrogenated	20 - < 25 %
	dermal: LD50 = > 1000 mg/kg; oral: LD50 = > 50 - < 300 mg/kg		
100-51-6	202-859-9	benzyl alcohol	15 - < 20 %
	dermal: LD50 = > 2000 mg/kg; oral: ATE 1200 mg/kg		
90640-66-7	292-587-7	Amines, polyethylenepoly-, tetraethylenepentamine fraction	5 - < 10 %
	dermal: LD50 = 2800 mg/kg; oral: ATE = 500 mg/kg		
1760-24-3	217-164-6	N-(3-(trimethoxysilyl)propyl)ethylenediamine	< 1 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2009 mg/kg; oral: LD50 = 2413 mg/kg		

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Provide fresh air.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Take off immediately all contaminated clothing and wash it before reuse.

After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

Remove person to fresh air and keep comfortable for breathing.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

After contact with eyes

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

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.
May produce an allergic reaction.

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 (CO_2)
- Dry extinguishing powder

Unsuitable extinguishing media

- Full water jet

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated:
- Carbon monoxide
- Ammonia (NH3)
- Nitrogen oxides (NOx).

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.
Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Avoid contact with skin, eyes and clothes.
Avoid release to the environment.
Safe handling: see section 7
Personal protection equipment: see section 8

For non-emergency personnel

No information available.

For emergency responders

No information available.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment

Take up mechanically, placing in appropriate containers for disposal. Take up dust-free and set down dust-free.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

No information available.

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

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

Advice on safe handling

Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Avoid contact with skin, eyes and clothes. Use protective skin cream before handling the product. Wash hands before breaks and after work.
When using do not eat, drink, smoke, sniff.
Only wear fitting, comfortable and clean protective clothing. Used working clothes should not be worn outside the work area. Remove contaminated, saturated clothing immediately. Street clothing should be stored separately from work clothing.

Further information on handling

Observe instructions for use.

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. Store in a dry place.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Keep away from:
- Frost
- Heat
- Humidity

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine			
Worker DNEL, long-term		inhalation	systemic	9,87 mg/m³
Worker DNEL, long-term		dermal	systemic	1,4 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,74 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,5 mg/kg bw/day
135108-88-2	Formaldehyde, polymer with benzenamine, hydrogenated			
Worker DNEL, long-term		inhalation	systemic	0,2 mg/m³
Worker DNEL, acute		inhalation	systemic	2 mg/m³
Worker DNEL, long-term		dermal	systemic	2 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	6 mg/kg bw/day
,				
100-51-6	benzyl alcohol			
Worker DNEL, long-term		inhalation	systemic	22 mg/m³
Worker DNEL, acute		inhalation	systemic	110 mg/m³
Worker DNEL, long-term		dermal	systemic	8 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	40 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	5,4 mg/m³
Consumer DNEL, acute		inhalation	systemic	27 mg/m³
Consumer DNEL, long-term		dermal	systemic	4 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	20 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	4 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day
,				
90640-66-7	Amines, polyethylenepoly-, tetraethylenepentamine fraction			
Worker DNEL, long-term		inhalation	systemic	4,94 mg/m³
Worker DNEL, acute		inhalation	systemic	6940 mg/m³
Worker DNEL, long-term		dermal	systemic	0,74 mg/kg bw/day
Worker DNEL, long-term		dermal	local	0,25 mg/cm²
Consumer DNEL, long-term		inhalation	systemic	0,87 mg/m³
Consumer DNEL, acute		inhalation	systemic	2071 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,32 mg/kg bw/day

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

Consumer DNEL, acute	dermal	systemic	10 mg/kg bw/day
Consumer DNEL, long-term	dermal	local	0,56 mg/cm²
Consumer DNEL, acute	dermal	local	1,29 mg/cm²
Consumer DNEL, long-term	oral	systemic	0,5 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	26 mg/kg bw/day
1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine			
Worker DNEL, long-term	inhalation	local	0,6 mg/m³
Worker DNEL, acute	inhalation	local	5,36 mg/m³
Consumer DNEL, long-term	inhalation	local	0,1 mg/m³
Consumer DNEL, acute	inhalation	local	4 mg/m³
Worker DNEL, long-term	inhalation	systemic	130 mg/m³
Worker DNEL, acute	inhalation	systemic	260 mg/m³
Worker DNEL, long-term	dermal	systemic	5 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	26 mg/m³
Consumer DNEL, acute	inhalation	systemic	26400 mg/m³
Consumer DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	17 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	4 mg/kg bw/day

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

PNEC values

CAS No	Substance	
Environmental compartment		Value
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine	
Freshwater		0,008 mg/l
Freshwater (intermittent releases)		0,0011 mg/l
Marine water		0,0008 mg/l
Freshwater sediment		10 mg/kg
Marine sediment		1 mg/kg
Secondary poisoning		2,22 mg/kg
Microorganisms in sewage treatment plants (STP)		2,3 mg/l
Soil		10 mg/kg
135108-88-2	Formaldehyde, polymer with benzenamine, 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
Microorganisms in sewage treatment plants (STP)		1,9 mg/l
Soil		1,8 mg/kg
100-51-6	benzyl alcohol	
Freshwater		1 mg/l
Freshwater (intermittent releases)		2,3 mg/l
Marine water		0,1 mg/l
Freshwater sediment		5,27 mg/kg
Marine sediment		0,527 mg/kg
Microorganisms in sewage treatment plants (STP)		39 mg/l
Soil		0,456 mg/kg
90640-66-7	Amines, polyethylenepoly-, tetraethylenepentamine fraction	
Freshwater		0,01 mg/l
Freshwater (intermittent releases)		0,068 mg/l
Marine water		0,001 mg/l
Freshwater sediment		3,198 mg/kg
Marine sediment		0,32 mg/kg
Secondary poisoning		0,23 mg/kg
Microorganisms in sewage treatment plants (STP)		4,6 mg/l
Soil		2,5 mg/kg

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine
Freshwater	0,05 mg/l
Freshwater (intermittent releases)	0,072 mg/l
Marine water	0,005 mg/l
Freshwater sediment	0,181 mg/kg
Marine sediment	0,018 mg/kg
Microorganisms in sewage treatment plants (STP)	20 mg/l
Soil	0,007 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations. Avoid dust formation.
Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye 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: >= 0,4 mm, Breakthrough time: >480 min
Wearing time with occasional contact (splashes): Thickness of the glove material: >= 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.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Paste
Colour:	beige
Odour:	Amines

		Test method
Melting point/freezing point:	No data available	
Boiling point or initial boiling point and boiling range:	No data available	
Flammability:	No data available	
Lower explosion limits:	No data available	
Upper explosion limits:	No data available	
Flash point:	122 °C	
Auto-ignition temperature:	No data available	
Decomposition temperature:	No data available	
pH-Value:	not applicable	
Viscosity / kinematic:	No data available	
Water solubility:	practically insoluble	

Solubility in other solvents

No information available.

Dissolution rate:	No data available	
Partition coefficient n-octanol/water:	No data available	
Dispersion stability:	No data available	
Vapour pressure:	No data available	
Vapour pressure:	No data available	
Density:	1,25 g/cm³	
Relative density:	No data available	
Bulk density:	No data available	
Relative vapour density:	> 1	(Air=1)

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:	< 1	(Ether=1)
Solvent separation test:	No data available	
Solvent content:	No data available	
Solid content:	No data available	

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
Viscosity / dynamic: (at 25 °C)	8000 mPa·s
Flow time:	No data available

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 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

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

10.5. Incompatible materials

- Strong acid
- Strong alkali
- Oxidising agent, strong
- Chlorine
- Oxygen,

10.6. Hazardous decomposition products

Nitrogen oxides (NOx), Carbon monoxide, Carbon dioxide (CO2),Nitric acid, 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.

ATEmix calculated

ATE (oral) 1477 mg/kg; ATE (dermal) > 5000 mg/kg

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine				
	oral	LD50 > 2000 mg/kg	Rat	study report (2009)	OECD Guideline 423
135108-88-2	Formaldehyde, polymer with benzenamine, hydrogenated				
	oral	LD50 > 50 - < 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
100-51-6	benzyl alcohol				
	oral	ATE 1200 mg/kg			
	dermal	LD50 > 2000 mg/kg	Rabbit	Raw Material Data Handbook, Vol.1:(Orga	EPA OTS 798.1100
90640-66-7	Amines, polyethylenepoly-, tetraethylenepentamine fraction				
	oral	ATE 500 mg/kg			
	dermal	LD50 2800 mg/kg	Rat	Study report (1979)	Saturated vapour was generated at 22°C b
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine				
	oral	LD50 2413 mg/kg	Rat	study report (1992)	OECD Guideline 401
	dermal	LD50 > 2009 mg/kg	Rat	study report (1992)	OECD Guideline 402
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.
Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine; Formaldehyde, polymer with benzenamine, hydrogenated; benzyl alcohol; Amines, polyethylenepoly-, tetraethylenepentamine fraction; N-(3-(trimethoxysilyl)propyl)ethylenediamine)

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (Feldspar)

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Formaldehyde, polymer with benzenamine, hydrogenated)

Aspiration hazard

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

Information on likely routes of exposure

No information available.

Specific effects in experiment on an animal

No information available.

Additional information on tests

No information available.

Practical experience

No information available.

11.2. Information on other hazards

Endocrine disrupting properties

Based on available data, the classification criteria are not met.
No data available

Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine						
	Acute fish toxicity	LC50	0,19 mg/l	96 h	Danio rerio (previous name: Brachydanio rerio)	study report (2009)	OECD Guideline 203
	Acute algae toxicity	ErC50	0,11 mg/l	72 h	Raphidocelis subcapitata (previous names: Pseudoki	study report (2025)	OECD Guideline 201
	Acute crustacea toxicity	EC50	0,18 mg/l	48 h	Daphnia magna	study report (2009)	OECD Guideline 202
	Crustacea toxicity	NOEC	0,32 mg/l	21 d	Daphnia magna	study report (2010)	OECD Guideline 211
	Acute bacteria toxicity	EC50	114 mg/l ( )	3 h	activated sludge of a predominantly domestic sewag	study report (2010)	OECD Guideline 209
135108-88-2	Formaldehyde, polymer with benzenamine, hydrogenated						
	Acute fish toxicity	LC50	63 mg/l	96 h	Poecilia reticulata	study report (2012)	OECD Guideline 203
	Acute algae toxicity	ErC50	43,94 mg/l	72 h	Desmodesmus subspicatus (previous name: Scenedesmu	study report (2012)	EU Method C.3
	Acute crustacea toxicity	EC50	15,4 mg/l	48 h	Daphnia magna	study report (2005)	OECD Guideline 202
100-51-6	benzyl alcohol						
	Acute fish toxicity	LC50	>= 100 mg/l	96 h	Oryzias latipes	study report (1998)	OECD Guideline 203
	Acute algae toxicity	ErC50	759 mg/l	72 h	Raphidocelis subcapitata (previous names: Pseudoki	study report (1998)	OECD Guideline 201
	Acute crustacea toxicity	EC50	230 mg/l	48 h	Daphnia magna	study report (1998)	OECD Guideline 202
	Fish toxicity	NOEC	48,897 mg/l	30 d	Fish species	http://epa.gov/oppt/exposure/pubs/episui	other: QSAR
	Crustacea toxicity	NOEC	51 mg/l	21 d	Daphnia magna	study report (1998)	OECD Guideline 211
	Acute bacteria toxicity	EC50	1385 mg/l ( )	3 h	activated sludge, domestic	study report (1989)	OECD Guideline 209
90640-66-7	Amines, polyethylenepoly-, tetraethylenepentamine fraction						
	Acute fish toxicity	LC50	420 mg/l	96 h	Poecilia reticulata	study report (1989)	EU Method C.1
	Acute algae toxicity	ErC50	6,8 mg/l	72 h	Raphidocelis subcapitata (previous names: Pseudoki	study report (1990)	OECD Guideline 201

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

	Acute crustacea toxicity	EC50 24,1 mg/l	48 h	Daphnia magna	study report (1989)	EU Method C.2
	Acute bacteria toxicity	EC50 97,3 mg/l ( )	0,5 h	activated sludge, domestic	REACh Registration Dossier	other: EEC L133 1988 p 118-122
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine					
	Acute fish toxicity	LC50 597 mg/l	96 h	Danio rerio (previous name: Brachydanio rerio)	study report (1994)	EU Method C.1
	Acute algae toxicity	ErC50 8,8 mg/l	72 h	Raphidocelis subcapitata (previous names: Pseudoki	study report (2002)	OECD Guideline 201
	Acute crustacea toxicity	EC50 81 mg/l	48 h	Daphnia magna	study report (1995)	EU Method C.2

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine			
	OECD 303A	89%	48	
	OECD 301D	50	28	
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine	2,2
135108-88-2	Formaldehyde, polymer with benzenamine, hydrogenated	2,68
100-51-6	benzyl alcohol	1,1
90640-66-7	Amines, polyethylenepoly-, tetraethylenepentamine fraction	-3,16
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	-3,4

BCF

CAS No	Chemical name	BCF	Species	Source
1226892-45-0	Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine	213		other company data (
135108-88-2	Formaldehyde, polymer with benzenamine, hydrogenated	> 18 - 22	Cyprinus carpio	study report (1997)
100-51-6	benzyl alcohol	1,371	QSAR model	http://epa.gov/oppt/

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

12.6. Endocrine disrupting properties

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

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. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine)
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

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. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine)
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. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

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. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine)
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:	Yes
Danger releasing substance:	Fatty acids, tall-oil, reaction products with tetraethylenepentamine, 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine

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

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

Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	3 - highly hazardous to water

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
Reaction products of C18 (unsaturated) fatty acids with tetraethylenepentamine
Formaldehyde, polymer with benzenamine, hydrogenated
benzyl alcohol
N-(3-(trimethoxysilyl)propyl)ethylenediamine

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,14,15,16.

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

Abbreviations and acronyms

Acute Tox. 4: Acute toxicity, hazard category 4
Skin Corr. 1C: Skin corrosion, sub-category 1C
Skin Corr. 1: Skin corrosion, hazard category 1
Eye Dam. 1: Serious eye damage, hazard category 1
Eye Irrit. 2: Eye irritation, hazard category 2
Skin Sens. 1: Skin sensitisation, hazard category 1
Skin Sens. 1A: Skin sensitisation, hazard category 1A
Skin Sens. 1B: Skin sensitisation, hazard category 1B
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
STOT RE 2: Specific target organ toxicity - repeated exposure, hazard category 2
Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3
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 conernat 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 Refulations 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
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office

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 SE 3; H335	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.

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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

©A. W. Chesterton Company, 2026 All Rights Reserved. ®Reg. US Patent and TM Office