

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

CHAMPION FILTER FLOC TABLETS

Version 4.0

Print Date 2024/01/10

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MSDS code: MYYY386

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

1.1. Product identifier

Trade name : CHAMPION FILTER FLOC TABLETS
Substance name : Aluminium Sulfate Hexadecahydrate
CAS-No. : 16828-11-8
EC-No. : 233-135-0
EU REACH-Reg. No. : 01-2119531538-36-xxxx

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

Use of the Substance/Mixture : Water treatment chemical

Uses advised against : Processes involving extreme heat use advised against., Any use involving aerosol formation or vapour or dust release in excess of the assigned workplace exposure limits, where workers are exposed without suitable respiratory protective equipment (RPE), Do not use for products which come into direct contact with the skin, Processes involving the use of incompatible substances- refer to Section 10., Reserved for industrial and professional use.

1.3. Details of the supplier of the safety data sheet

Company : Brenntag UK Limited
Alpha House, Lawnswood Business Park
GB LS16 6QY Leeds

Telephone : +44 (0) 113 3879 200
Telefax : +44 (0) 113 3879 280
E-mail address : msds@brenntag.co.uk

1.4. Emergency telephone number

Emergency telephone number : Emergency only telephone number (open 24 hours):
+44 (0) 1865 407333 (N.C.E.C. Culham)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation S.I. 2019/720 (GB CLP)

Regulation S.I. 2019/720 (GB CLP)

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Hazard class	Hazard category	Target Organs	Hazard statements
Corrosive to metals	Category 1	---	H290
Serious eye damage	Category 1	---	H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

Most important adverse effects


Human Health : See section 11 for toxicological information.

Physical and chemical hazards : See section 9/10 for physicochemical information.

Potential environmental effects : See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation S.I. 2019/720 (GB CLP)

Hazard symbols : 

Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
H318 Causes serious eye damage.

Precautionary statements

Prevention : P234 Keep only in original packaging.
P280 Wear eye protection/ face protection.

Response : P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P390 Absorb spillage to prevent material damage.

Hazardous components which must be listed on the label:

|| • Aluminium Sulfate Hexadecahydrate

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2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical nature : A blend of aluminium sulphate with multifunctional additives.

Hazardous components	Amount [%]	Classification (Regulation S.I. 2019/720 (GB CLP))	
		Hazard class / Hazard category	Hazard statements
Aluminium Sulfate Hexadecahydrate			
CAS-No. : 16828-11-8	<= 100	Met. Corr.1	H290
EC-No. : 233-135-0		Eye Dam.1	H318
EU REACH-Reg. No. : 01-2119531538-36-xxxx			

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	: Take off all contaminated clothing immediately.
If inhaled	: Remove to fresh air. If symptoms persist, call a physician.
In case of skin contact	: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
In case of eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. In case of spontaneous vomiting

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prevent aspiration, make sure that victims head is lower than the hips. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Protection of First Aid Responders : First Aid responders should pay attention to self-protection and use the recommended protective clothing.

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

Symptoms : See Section 11 for more detailed information on health effects and symptoms.

Effects : See Section 11 for more detailed information on health effects and symptoms.

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

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : Not combustible. Fire may produce irritating, corrosive and/or toxic gases.

Hazardous combustion products : Carbon monoxide, Carbon dioxide (CO₂)

5.3. Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear personal protective equipment.

Further advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Do not inhale explosion and combustion gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment. Keep away unprotected persons. Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

6.2. Environmental precautions

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Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Do not allow undiluted product or large quantities of it to reach sewage system or water bodies.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up : Use mechanical handling equipment. Keep in suitable, closed containers for disposal.

Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Keep container tightly closed. Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe dust. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Further information on storage conditions : Keep tightly closed in a dry and cool place.

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Keep away from metals.

Suitable packaging materials : aluminium, copper, Zinc Barrels

7.3. Specific end use(s)

Specific use(s) : No information available.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

DNEL	Workers, Long-term - systemic effects, Inhalation anhydrous substance	: 13.4 mg/m ³
DNEL	Workers, Long-term - systemic effects, Skin contact anhydrous substance	: 3.8 mg/kg bw/day
DNEL	Consumers, Long-term - systemic effects, Inhalation anhydrous substance	: 3.3 mg/m ³
DNEL	Consumers, Long-term - systemic effects, Skin contact anhydrous substance	: 1.9 mg/kg bw/day
DNEL	Consumers, Long-term - systemic effects, Ingestion anhydrous substance	: 1.9 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

No PNEC value was derived.	:
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Other Occupational Exposure Limit Values

UK. EH40 Workplace Exposure Limits (WELs), as amended, Time Weighted Average (TWA): 2 mg/m ³
ELV (IE), Time Weighted Average (TWA): 2 mg/m ³

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

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Personal protective equipment

Respiratory protection

Advice : Required, if exposure limit is exceeded (e.g. OEL).

Hand protection

Advice : Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Protective gloves should be replaced at first signs of wear.
The following materials are suitable:
PVC
Neoprene
natural rubber

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : Wear personal protective equipment.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
Do not allow undiluted product or large quantities of it to reach sewage system or water bodies.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	: tablet
Physical state	: solid
Colour	: white
Odour	: characteristic
Odour Threshold	: No data available
Melting point/freezing point	: 770 °C Decomposition: yes
Boiling point	: No data available

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Flammability (solid, gas) : The product is not flammable.

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : Cannot support combustion.

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Self-Accelerating decomposition temperature (SADT) : No data available

pH : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Flow time : No data available

Solubility(ies)

Water solubility : completely miscible, soluble

Solubility in other solvents : No data available

Dissolution Rate : No data available

Partition coefficient: n-octanol/water : No data available

Dispersion Stability : No data available

Vapour pressure : No data available

Relative density : No data available

Density : 2.71 g/cm³ (20 °C)

Bulk density : No data available

Relative vapour density : No data available

Particle characteristics
No data available

9.2 Other information

Explosives : The product does not present an explosion hazard.

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SECTION 10: Stability and reactivity

10.1. Reactivity

Advice : No decomposition if stored and applied as directed.

10.2. Chemical stability

Advice : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : The solution in water is a medium strength acid. Alkalis Corrosive to many metals when in contact with water or humidity.

10.4. Conditions to avoid

Conditions to avoid : No further relevant information available.

10.5. Incompatible materials

Materials to avoid : Non acid-proof metals, Aluminium, Copper, Iron, Bases, Unalloyed metals, Galvanised surfaces

10.6. Hazardous decomposition products

Hazardous decomposition products : Heating may cause toxic fumes, Corrosive gases / vapours, Sulphur oxides

SECTION 11: Toxicological information

11.1. Information on the hazard classes within the meaning of Regulation (EC) No. 1272/2008

Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
Acute toxicity		
Oral		
LD50	: > 2000 mg/kg (Mouse)	
LD50	: > 2000 mg/kg (Rat, male and female; Test substance: Aluminum Sulfate, Hydrate) (OECD Test Guideline 401)	
Inhalation		
LC50	: > 5 mg/l (Rat, male and female; 4 h; dust/mist; Test substance: Aluminium oxide/Aluminium hydroxide) (OECD Test Guideline 403)	
Dermal		

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	LD50	:	> 5000 mg/kg (Rat)
	LD50	:	> 5000 mg/kg (Rabbit, male and female; Test substance: Aluminum Sulfate, Hydrate) (OECD Test Guideline 402)

Irritation

Skin

	Result	:	No skin irritation (Rabbit; Test substance: Aluminum Sulfate, Hydrate) (OECD Test Guideline 404)
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Eyes

	Result	:	Irreversible damage. (Rabbit; Test substance: Aluminum Sulfate, Hydrate) (OECD Test Guideline 405)
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Sensitisation

	Result	:	not sensitizing (Local lymph node assay (LLNA); Dermal; Mouse; Test substance: anhydrous substance) (OECD Test Guideline 429)
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CMR effects

CMR Properties

	Carcinogenicity	:	Animal testing did not show any carcinogenic effects.
	Mutagenicity	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
	Reproductive toxicity	:	It is not considered toxic for reproduction.

Genotoxicity in vitro

	Result	:	negative (Bacterial Reverse Mutation Test; Salmonella typhimurium; with and without metabolic activation) (OECD Test Guideline 471) negative (Micronucleus test; Human lymphocytes; with and without metabolic activation) (OECD Test Guideline 487) negative (In vitro gene mutation study in bacteria; Mouse Lymphoma Cells; with and without metabolic activation) (OECD Test Guideline 476)
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Specific Target Organ Toxicity

Single exposure

	Remarks	:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
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Repeated exposure

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|| Remarks : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Other toxic properties

Repeated dose toxicity

|| NOAEL : 90 mg/kg bw/day

|| NOAEL : 18 mg/kg bw/day
(Rat, wistar, male and female; Test substance: Aluminium)(Oral) (OECD Test Guideline 422); Systemic toxicity

|| (Rat, wistar, male; Test substance: Aluminium)(Oral) (OECD Test Guideline 422); Local effects

Aspiration hazard

|| Not applicable,

11.2. Information on other hazards

Data for the product

Endocrine disrupting properties

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Component: Aluminium Sulfate Hexadecahydrate CAS-No. 16828-11-8

Endocrine disrupting properties

|| Assessment : No information available about endocrine disruption properties for human health.

SECTION 12: Ecological information

12.1. Toxicity

Component: Aluminium Sulfate Hexadecahydrate CAS-No. 16828-11-8

Acute toxicity

Fish

|| NOEC : > 1,000 mg/l (Danio rerio (zebra fish), mortality; 96 h; Test substance: Aluminum chloride, basic) (semi-static test; OECD Test

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	LC50	:	Guideline 203) > 87.5 mg/l (Danio rerio (zebra fish), mortality; 96 h; Test substance: Aluminium) (semi-static test; OECD Test Guideline 203)
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Toxicity to daphnia and other aquatic invertebrates

	NOEC	:	>= 160 mg/l (Daphnia magna (Water flea); 48 h; Test substance: Aluminum Sulfate, Hydrate) (semi-static test; OECD Test Guideline 202)
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algae

	EC50	:	14 mg/l (Pseudokirchneriella subcapitata (green algae); 72 h) (static test; OECD Test Guideline 201)Read-across (Analogy)
	EC50	:	0.24 mg/l (Pseudokirchneriella subcapitata (green algae); 72 h; Test substance: Aluminium) (static test; End point: Growth rate; OECD Test Guideline 201)
	NOEC	:	1 mg/l (Pseudokirchneriella subcapitata (green algae); 72 h) (static test; OECD Test Guideline 201)Read-across (Analogy)
	NOEC	:	< 0.02 mg/l (Pseudokirchneriella subcapitata (green algae); 72 h; Test substance: Aluminium) (static test; End point: Growth rate; OECD Test Guideline 201)

12.2. Persistence and degradability

Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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Persistence and degradability

Persistence

	Result	:	No data available
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Biodegradability

	Result	:	The methods for determining the biological degradability are not applicable to inorganic substances.
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12.3. Bioaccumulative potential

Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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Bioaccumulation

	Result	:	Bioaccumulation is not expected.
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12.4. Mobility in soil

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Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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Mobility

Water	:	The product is water soluble.
Air	:	not volatile

12.5. Results of PBT and vPvB assessment

Data for the product

Results of PBT and vPvB assessment

Result	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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Results of PBT and vPvB assessment

Result	:	The PBT or vPvB criteria of Annex XIII to the REACH Regulation does not apply to inorganic substances.
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12.6. Endocrine disrupting properties

Data for the product

Endocrine disrupting potential	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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Endocrine disrupting potential	:	No information available about endocrine disruption properties for environment.
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12.7. Other adverse effects

Data for the product

Additional ecological information

Result	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
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Result	:	
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Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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Additional ecological information

||| Result : Harmful effects to aquatic organisms due to pH-shift.
Salts of alumina may be harmful for salmon at pH-value < 5,5.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services. This product shall be disposed of or recovered in compliance with Directive 2008/98/EC on waste as lastly amended.
- Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. If recycling is not practicable, dispose of in compliance with local regulations.
- European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

Not dangerous goods for ADR, RID, IMDG and IATA.

14.1. UN number or ID number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packaging group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

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14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Component:	Aluminium Sulfate Hexadecahydrate	CAS-No. 16828-11-8
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EU. Chemicals Subject to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended : ; The substance/mixture does not fall under this legislation.

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC) : ; The substance/mixture does not fall under this legislation.

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I : ; The substance/mixture does not fall under this legislation.

Germany. List of Substances That Are Not Water-Endangering, AwSV of 21 April 2017, UBA, Banz AT, as amended : WGK 1: slightly hazardous to water: 486; This classification does not limit the use of the substance, when used skillfully and in compliance with relevant regulations, for drinking water preparation, surface water cleanup, or waste water treatment.

15.2. Chemical safety assessment

No data available

SECTION 16: Other information

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Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H318	Causes serious eye damage.

Abbreviations and Acronyms

AU AIICL	Australia. Industrial Chemicals Act (AIIIC) List
BCF	bioconcentration factor
BOD	biochemical oxygen demand
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	carcinogenic, mutagenic or toxic to reproduction
COD	chemical oxygen demand
DNEL	derived no-effect level
DSL	Canada. Environmental Protection Act, Domestic Substances List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ENCS (JP)	Japan. Kashin-Hou Law List
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IECSC	China. Inventory of Existing Chemical Substances
INSQ	Mexico. National Inventory of Chemical Substances
ISHL (JP)	Japan. Inventory of Industrial Safety & Health
KECI (KR)	Korea. Existing Chemicals Inventory
LC50	median lethal concentration
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
LOEL	lowest observed effect level
NDSL	Canada. Environmental Protection Act. Non-Domestic Substances List
NLP	no-longer polymer
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
NZIOC	New Zealand. Inventory of Chemicals
OECD	Organisation for Economic Cooperation and Development
OEL	occupational exposure limit
ONT INV	Canada. Ontario Inventory List
PBT	persistent, bioaccumulative and toxic
PHARM (JP)	Japan. Pharmacopoeia Listing
PICCS (PH)	Philippines. Inventory of Chemicals and Chemical Substances

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PNEC	predicted no-effect concentration
REACH Auth. No.:	REACH Authorisation Number
REACH AuthAppC. No.	REACH Authorisation Application Consultation Number
UK REACH Auth. No.:	UK REACH Authorisation Number
UK REACH AuthAppC. No.	UK REACH Authorisation Application Consultation Number
UK REACH-Reg.No	UK REACH Registration Number
STOT	specific target organ toxicity
SVHC	substance of very high concern
TCSI	Taiwan. Existing Chemicals Inventory
TH INV	Thailand. Existing Chemicals Inventory from FDA
TSCA	US. Toxic Substances Control Act
UVCB	substance of unknown or variable composition, complex reaction products or biological materials
VN INVL	Vietnam. National Chemical Inventory
vPvB	very persistent and very bioaccumulative

Further information

Key literature references and sources for data	:	Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.
Methods used for product classification	:	The classification for human health, physical and chemical hazards and environmental hazards were derived from a combination of calculation methods and if available test data.
Hints for trainings	:	The workers have to be trained regularly on the safe handling of the products based on the information provided in the Safety Data Sheet and the local conditions of the workplace. National regulations for the training of workers in the handling of hazardous materials must be adhered to.
Other information	:	<p>The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.</p> <p>The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.</p>

|| Indicates updated section.