

SAFETY DATA SHEET

Roth Clima Comfort Flow

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	17.04.2018
Revision date	17.04.2018

1.1. Product identifier

Product name	Roth Clima Comfort Flow
Article no.	S795
GTIN No.	7054159997950

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

Function	Description: Cement-based, self-levelling filler compound for indoor use.
Use categories nordic (UCN).	K35100
Use of the substance / preparation	Suitable for all substrates before being covered with flooring, tiles, etc.
Relevant identified uses	SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)SU19 Building and construction workSU21 Consumer uses: Private households (= general public = consumers)SU22 Professional uses: publicly accessible (administration, education, entertainment, services, craftsmen)PC10 Building and construction substances not covered elsewherePROC2 Use in closed, continuous process with occasional controlled exposurePROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilitiesPROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)ERC2 Formulation of preparationsERC8C Wide dispersive indoor use resulting in inclusion into or onto a matrix
Standard industrial classification (NACE)	23.650
The chemical can be used by the general public	Yes

1.3. Details of the supplier of the safety data sheet

Downstream user

Company name	Roth North Europe AS
Office address	Centervej 5
Postal address	DK-Frederikssund
Postcode	3600
City	Frederikssund
Country	Denmark
Telephone number	+45 47380121
Fax	+45 47380242
Email	service@roth-nordic.dk
Website	http://www.roth-nordic.com

1.4. Emergency telephone number

Emergency telephone	Telephone number: 999 or 112
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SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Eye Irrit. 2; H319
	Skin Irrit. 2; H315
	Skin Sens. 1; H317
Substance / mixture hazardous properties	The product contains cement mixed with water and is irritating to skin and eyes. For further information, please refer to section 11.

2.2. Label elements

Hazard pictograms (CLP)



Composition on the label	Portland Cement 1 – 3 %
Signal word	Warning
Hazard statements	H319 Causes serious eye irritation. H315 Causes skin irritation. H317 May cause an allergic skin reaction.
Precautionary statements	P102 Keep out of reach of children. P261 Avoid breathing dust. P280 Wear protective gloves / protective clothing / eye protection / face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice / attention.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P501 Dispose of contents / container to licensed waste disposal site in accordance with local Waste Disposal Authority.

2.3. Other hazards

PBT / vPvB	This product does not contain any PBT or vPvB substances.
Health effect	Inhalation of dust may irritate the respiratory system. May be slightly irritating to skin and eyes. Splashes in the eyes may cause redness and irritation.
Environmental effects	In the presence of water the product hardens to a solid mass which is not biodegradable.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Portland Cement	CAS No.: 65997-15-1 EC No.: 266-043-4	Eye Dam. 1;H318 Skin Irrit. 2;H315 Skin Sens. 1; H317 STOT SE3; H335	1 – 3 %
Description of the mixture	The Safety Data Sheet indicates the product's characteristics in dry condition. The product contains cement mixed with water which may cause irritation to skin and eyes.		
Reason for substance inclusion in the SDS	Aluminate cement are not classified as hazardous, but mixed with water it may be corrosive to skin and eyes.		
Substance comments	The full text for all hazard statements is displayed in section 16. Includes natural sand containing quartz. Respirable quartz is less than 0,1 % (particles <5µm).		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Remove affected person from source of contamination. Contaminated clothing should be removed immediately. Get medical attention if any discomfort continues.
Inhalation	Fresh air. Ensure free airways, seek medical attention if irritation persists.
Skin contact	Remove contaminated clothing. Wash the skin immediately with soap and water.
Eye contact	Rinse the eye with water immediately. Get medical attention if any discomfort continues.
Ingestion	When small amounts (a mouthful or less): Rinse mouth with water. Drink water or milk. Contact your doctor for evaluation. For larger quantities than described above: Rinse mouth with water. Drink water or milk. Seek immediate medical attention.

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

Acute symptoms and effects	The product contains substances which may cause allergic skin reaction.
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Delayed symptoms and effects	The product may cause eye irritation or perspiration and mild skin irritation with prolonged exposure.
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4.3. Indication of any immediate medical attention and special treatment needed

Medical treatment	Symptomatic treatment.
Information on clinical testing	Not known.
Medical monitoring for delayed effects	The cement is chrome reduced, but allergic reactions may occur to sensitized persons as a result of the cement may contain small quantities of chromate. The cement is chrome reduced to approximately 1 year from date of manufacture.
Other information	General health check.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Choose in relation to the surrounding fire.
Improper extinguishing media	None.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	Not relevant.
Hazardous combustion products	Not relevant.

5.3. Advice for firefighters

Personal protective equipment	No recommendation given.
Fire fighting procedures	Use extinguishing measures appropriate to local circumstances and the surrounding environment.
Special protective equipment for firefighters	Firefighters should use adequate protection.
Other information	Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Use personal protective equipment as specified in section 8.
Personal protection measures	Use specified protective equipment. Avoid inhalation of dust. Avoid contact with skin and eyes. Use recovery methods without development of dust.
Protective equipment	See section 8.
Emergency procedures	Not relevant.
For emergency responders	Use the specified safety equipment. See section 8

6.2. Environmental precautions

Environmental precautionary measures	Collect and dispose of spillage as indicated in section 13.
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6.3. Methods and material for containment and cleaning up

Containment	No recommendation given.
Clean up	Larger quantities should be collected and delivered to a licensed waste operator. Small amounts should be taken up mechanically, avoiding dust formation.

6.4. Reference to other sections

Other instructions	See section 1 for emergency contact information. See section 8 for information on appropriate personal equipment. See section 13 for waste disposal.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Follow the instructions. Bags should be handled carefully and stacked well. Avoid dust-forming processing.
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Protective safety measures

Protective safety measures	No recommendation given.
Safety measures to prevent fire	No specific measures necessary.
Preventitive measures to protect the environment	Avoid dust formation.
Advice on general occupational hygiene	First-aid equipment, including eye wash bottle, must be available at the work site. Provide easy access to water supply or an emergency shower. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in dry, sealed container.
Conditions to avoid	Avoid contact with moisture and influence of weather.

Conditions for safe storage

Technical measures and storage conditions	No specific measures or conditions indicated.
Packaging compatibilities	Store in tightly sealed original packaging.
Requirements for storage rooms and vessels	Store in a dry place. Store in a closed container.
Advice on storage compatibility	No specific advice on storage is indicated.
Storage stabilit	Best results within 9 months of the date of manufacture.

7.3. Specific end use(s)

Recommendations	Read the description in the technical datasheet about surface treatment before use.
Specific use(s)	Suitable for all substrates before being covered with flooring, tiles, etc.

SECTION 8: Exposure controls / personal protection

Comments if preventive industrial medical examinations are to be carried out	A need for preventive occupational medical examinations is not indicated.
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8.1. Control parameters

Substance	Identification	Value	TWA Year
Natural sand	CAS No.: 14808-60-7	TWA (8h) : 0,3 mg/m ³ Exposure limit letter Letter description: Total dust TWA (8h) : 0,1 mg/m ³ Exposure limit letter Letter description: Respirable dust	TWA Year: 2010
Inhalable dust, total dust		TWA (8h) : 10 mg/m ³	TWA Year: 2010
Inhalable dust, respirable dust		TWA (8h) : 5 mg/m ³	TWA Year: 2010
Other Information about threshold limit values	Includes natural sand containing quartz. Respirable quartz is less than 0,1 % (particles <5µm).		

8.2. Exposure controls

Safety signs



Precautionary measures to prevent exposure

Appropriate engineering controls	Observe occupational exposure limits and minimise the risk of inhalation of dust.
Instruction on measures to prevent exposure	The usual precautions for handling chemicals should be followed. Wear proper protective equipment.
Technical measures to prevent exposure	Provide adequate general and local exhaust ventilation.

Eye / face protection

Suitable eye protection	Wear approved chemical safety goggles where eye exposure is reasonably probable.
Eye protection equipment	Description: If risk of splashing, wear safety goggles or face shield. Reference to relevant standard: EN 166

Hand protection

Skin- / hand protection, long term contact	< 8 h Neoprene, nitrile, polyethylene or PVC.
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Skin- / hand protection, long term contact	> 8 h Neoprene, nitrile, polyethylene or PVC.
Suitable gloves type	Neoprene, nitrile, polyethylene or PVC.
Breakthrough time	Value: > 480 minute(s) Comments: Breakthrough time for the given glove material.
Hand protection equipment	Description: Neoprene, nitrile, polyethylene or PVC. Reference to relevant standard: EN 374
Hand protection, comments	The cement is chrome reduced, hence reduced possibility of chromium allergy. People allergic to chrome should still avoid contact with newly mixed products containing cement. See further details in section 11.

Skin protection

Suitable protective clothing	Use suitable protective clothing.
Unsuitable protective clothing	No recommendation given.
Protective clothing necessary properties	Overall suit shall be used where the work involves smudging to such an extent that ordinary working clothes do not protect the skin against contact with the product.
Recommended protective clothing	Description: In case of direct contact or splash, wear protective clothing. Reference to relevant standard: ISO 13688
Additional skin protection measures	Remove contaminated clothing and wash the skin thoroughly with soap and water after work.
Skin protection remark	Prolonged or repeated skin contact may lead to dry skin with risk of cracking.

Respiratory protection

Respiratory protection necessary at	Use specified dust masks.
Tasks needing respiratory protection	Wear a dust mask class P2 for work in dusty areas.
Recommended respiratory protection	Mask type: Dust mask. Filter apparatus type: Filter P2 (for fine dust). Reference to relevant standard: EN 143
Additional respiratory protection measures	Provide sufficient ventilation for operations causing dust formation.

Thermal hazards

Thermal hazards	Not relevant.
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Hygiene / environmental

Personal protection equipment, comments	No recommendation given.
Specific hygiene measures	Use appropriate skin cream to prevent drying of skin. Provide shower facilities near the work place.

Appropriate environmental exposure control

Environmental exposure controls	The product must not be discharged directly into drains or waterways without treatment.
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Exposure controls

Safety measures for consumer use of the chemical	Use the specified safety equipment. See section 8. Follow the label instructions.
Exposure controls and personal protection, additional information	All protection should be CE marked. Contaminated clothes should be laundered before reuse.
Exposure controls, comments	Wash hands before breaks, lavatory and before leaving the work site.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Powder.
Colour	Grey.
Odour	No characteristic odour.
pH	Status: In aqueous solution Value: ~ 10,5 Comments: Mixed in water
Melting point / melting range	Comments: Not relevant.
Boiling point / boiling range	Comments: Not relevant.
Flash point	Comments: Not relevant.
Explosion limit	Comments: Not relevant.
Vapour pressure	Comments: Not relevant.
Specific gravity	Value: = 1600 kg/m ³
Solubility	Comments: Miscible with water.
Spontaneous combustability	Comments: Not relevant.
Decomposition temperature	Comments: Not relevant.
Viscosity	Comments: Not relevant.
Explosive properties	No explosive properties.
Oxidising properties	No oxidizing properties.

9.2. Other information

Physical hazards

Miscibility	Miscible with water.
Content of VOC	Value: < 0,5 Method: ISO 16000-10 ISO 16000-3 ISO 16000-6 Comments: 3 days Value: < 0,5

	Method: ISO 16000-10 ISO 16000-3 ISO 16000-6 Comments: 28 days
Solvent content	Comments: Not relevant.
Particle size	Value: 0 – 1 mm

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No hazardous reactions if regulations/notes for storage and handling are observed.
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10.2. Chemical stability

Stability	Stable under recommended storage conditions – see Section 7.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Stable under recommended storage conditions – see Section 7.
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10.4. Conditions to avoid

Conditions to avoid	The product will harden into a hard mass in contact with water and moisture.
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10.5. Incompatible materials

Materials to avoid	Strong acids.
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10.6. Hazardous decomposition products

Hazardous decomposition products	No hazardous decomposition products when handled and stored properly.
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Other information

Other information	The powder reacts with water to form an alkaline solution. Mortar hardens after a short time.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance	Blast furnace slag (granulated)
Acute toxicity	<p>Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: > 2000 mg/kg Animal test species: Wistar rat</p> <p>Type of toxicity: Acute Effect tested: LC50 Route of exposure: Inhalation. Duration: 4 hour(s)</p>

	<p>Value: > 5234 mg/m³ Animal test species: Wistar rat Test reference: OECD 403 Comments: Powder</p>
Substance	Calcium sulfate
Acute toxicity	<p>Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: > 1581 mg/kg bw Animal test species: Rat Rat Test reference: OECD 420 OECD 403</p> <p>Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal Value: n/a Comments: No toxicity due to low absorption potential.</p> <p>Type of toxicity: Acute Effect tested: LC50 Route of exposure: Inhalation. Duration: Maximal dose Value: > 2,61 mg/l Animal test species: Rat Test reference: OECD 403</p>

Other information regarding health hazards

Skin corrosion / irritation, human experience	The product contains cement mixed with water and can irritate the skin and eyes.
Assessment of skin corrosion / irritation, classification	Irritating to skin.
Assessment of eye damage or irritation, classification	Splashes may irritate and cause redness.
General respiratory or skin sensitisation	Inhalation of dust may cause irritation of the respiratory tract.
Skin contact	The product may cause irritation by prolonged contact.
Eye contact	Causes serious eye irritation.
Ingestion	Not relevant.
Sensitisation	The product is classified as sensitizing due to the long shelf life. Allergic reactions may occur due to the fact that the cement may contain small amounts of chromates. The cement is chrome reduced, and the reduction effect is effective approximately 1 year. Persons with chrome allergies should still avoid contact with products containing cement. See more detailed explanation in the section "Symptoms of exposure".
Mutagenicity	Not relevant.
Germ cell mutagenicity, human experience	Not relevant.
Assessment of germ cell mutagenicity, classification	Not relevant.

Carcinogenicity, other information	Not relevant.
Carcinogenicity human experience	Not relevant.
Reproductive toxicity	Not relevant.
Reproductive toxicity, human experience	Not relevant.
Assessment of reproductive toxicity, classification	Not relevant.

Symptoms of exposure

In case of ingestion	Not relevant.
In case of skin contact	Symptoms include redness, swelling, blisters and ulceration and are usually developed slowly.
In case of inhalation	Inhalation of dust may cause irritation to the upper respiratory tract.
In case of eye contact	Irritating to eyes.
Other information	The product contains cement which is chrome reduced (<0.0002%) with iron sulphate which converts chromium VI to III. Hexavalent chromium salts in cement are soluble and can when mixed with water form a harmful solution. By adding iron sulfate for reduction from chromium VI to III, this health risk is significantly reduced. Reduction effect in pure cement is at least 6 months and in mortar at least 12 months when stored in a dry place in closed containers. The health risk apply only to damp or wet environments and not to dry powder. Health hazard is dependent on the use and protection measures.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Limestone
Acute aquatic, fish	Value: > 100 mg/l Test duration: 96 h Method: LC50
Substance	Blast furnace slag (granulated)
Acute aquatic, fish	Value: > 1000 g/l Test duration: 96 hour(s) Species: Leuciscus idus
Substance	Calcium sulfate
Acute aquatic, fish	Value: > 79 mg/l Test duration: 96 h Species: Japansk ris fisk Method: OECD 203 Test reference: Harmless up to the tested concentration.
Substance	Blast furnace slag (granulated)
Acute aquatic, algae	Value: > 100 g/l Test duration: 72 hour(s)

Substance	Species: Scenedesmus subspicatus
Acute aquatic, algae	Calcium sulfate Value: > 79 mg/l Test duration: 72 h Species: Selenastrum capricornutum Method: OECD 201 Test reference: Harmless up to the tested concentration.
Substance	Blast furnace slag (granulated)
Acute aquatic, Daphnia	Value: > 1000 g/l Test duration: 48 hour(s) Species: Daphnia magna
Substance	Calcium sulfate
Acute aquatic, Daphnia	Value: > 79 mg/l Test duration: 48 h Species: Daphnia magna Method: OECD 202 Test reference: Harmless up to the tested concentration.
Substance	Copolymer of vinyl acetate and ethylene with mineral additives and protective colloid
Acute aquatic, Daphnia	Value: > 100 mg/l Species: Daphnia magna Method: OECD 202 Alanlog conclusion. Test reference: static (water-accommodated fraction)
Ecotoxicity	The product is not expected to be toxic to aquatic organisms. LC50 values for toxicity in water is not proven. However, mixing of cement in water increase the water's pH and therefore has some toxic effect on aquatic organisms under certain conditions.
Aquatic, comments	Not classified as dangerous for the environment. However, the product must not be discharged into drains or water courses or deposited where it can affect ground or surface waters.

12.2. Persistence and degradability

Persistence and degradability description	This product does not contain any PBT or vPvB substances.
Biodegradability	Comments: The product is not biodegradable.
Chemical oxygen demand (COD)	Comments: Not known.
Biological oxygen demand (BOD)	Comments: Not known.
Persistence and degradability, comments	The product is not biodegradable, but will harden in contact with water.

12.3. Bioaccumulative potential

Bioaccumulative potential	No bioaccumulation is indicated.
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12.4. Mobility in soil

Mobility	Not considered mobile.
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Surface tension	Comments: Not known.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	This product does not contain any PBT or vPvB substances.
vPvB evaluation results	The product contains no PBT or vPvB substances.

12.6. Other adverse effects

Other adverse effects, comments	None known.
Environmental details, summation	Do not allow the product to reach ground water, water course or sewage. When the product is used for the specified purpose and handled according to directions, the risk of negative environmental impact is minimal .

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Do not allow runoff to sewer, waterway or ground. Cured material is not hazardous waste. Dispose of according to local regulations on municipal waste site. Concrete debris and waste can be recycled or used as filling material. The below listed hazardous waste codes (EWC) are a guide. User must set the appropriate EWC code for own specific use.
EWC waste code	EWC waste code: 101314 waste concrete and concrete sludge Classified as hazardous waste: No EWC waste code: 170101 concrete Classified as hazardous waste: No
EWL packing	EWC waste code: 150101 paper and cardboard packaging Classified as hazardous waste: No
National regulations	Regulation 01.06 2004 nr. 930, on recycling of waste with subsequent amendments. Guidelines (Norsas) on collection and declaration of hazardous waste (2015).
Other information	Empty and cleaned packaging can be recycled.

SECTION 14: Transport information

Dangerous goods	No
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14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Additional information

Additional information	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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SECTION 15: Regulatory information

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

Assessed restrictions	By assessment no identified restrictions.
Restriction of chemicals according to Annex XVII (REACH)	No restrictions identified.
Other labelling requirements	No other labeling requirements.
Other label information	Not relevant.
EU occupational restrictions	No restrictions identified.
Biocides	No
Nanomaterial	No
References (laws/regulations)	EU Regulation No. 1907/2006 (REACH) Title IV, art. 31 and Annex II. EU Regulation on classification labeling and packaging of substances and preparations (abbreviated CLP) (EC) No 1272/2008 Annex XIV – List of substances subject to authorization. Substances that give great cause for concern. Annex XVII – Restrictions on the production, marketing and use of certain hazardous substances. Regulation 704 on occupational limit values with changes. EU Waste regulation (EU) nr. 413/2010 with changes ADR / RID 2017 Regulation No. 384 01 April 2009.

15.2. Chemical safety assessment

Chemical safety assessment performed	No
Exposure scenarios for mixture	No

SECTION 16: Other information

Supplier's notes	Information provided in the safety data sheet is prepared on the basis of information supplied by subcontractors, and according to information in our possession at the last entered revision date. The information is to be regarded as guidelines for safe use, processing, storage and transportation. It is assumed that the product is used in accordance with the description on the packaging or in the technical data sheet/product data sheet prepared by Roth North Europe AS. Any other use of the product, if necessary in combination with other products or processes are not recommended, unless otherwise agreed with Roth North Europe AS.
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List of relevant H-phrases (Section 2 and 3)	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes Serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Classification according to Regulation (EC) No 1272/ 2008 [CLP / GHS]	Eye Irrit. 2; H319 Skin Irrit. 2; H315 Skin Sens. 1; H317
Version	1