SAFETY DATA SHEET

ULTRAShield Component 2, ULTRAJoint LT Component 2, ULTRASolid+ and ULTRAJoint HT Component 2

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	30.04.2019

1.1. Product identifier

Product name	ULTRAShield Component 2, ULTRAJoint LT Component 2, ULTRASolid+ and ULTRAJoint HT Component 2
No requirement for SDS	There is no requirement according to the REACH Regulation (EC) No. 1907/2006, Article 31.

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

Use of the substance / preparation	Industrial use Polymer.

1.3. Details of the supplier of the safety data sheet

Company name	Shawcor Norway AS
Postal address	Grønøra Industriområde
Postcode	7300
City	ORKANGER
Country	Norway
Contact person	Rolf Kleven

1.4. Emergency telephone number

Emergency telephone	Telephone number: 22 59 13 00 Description: Giftinformasjonen

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP classification, notes	Classification according to (EC) No.1272/2008: Not classified.

2.2. Label elements

Other label information (CLP)	NOT CLASSIFIED according to health-, fire- and environmental hazard.

2.3. Other hazards

PBT / vPvB	Not relevant.
Physicochemical effects	High concentrations of dust may form explosive mixture with air.
Health effect	Inhalation of dust may irritate the respiratory system. May irritate eyes and skin.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
High Impact Polystyrene	CAS No.: 9003-55-8		> 50 %
Polypropene	CAS No.: 9003-07-0		0 -50 %
Polyethylene	CAS No.: 9002-88-4		0 -50 %
Polybutadiene			< 20 %
Styrene	CAS No.: 100-42-5 EC No.: 202-851-5 Index No.: 601-026-00-0 REACH Reg. No.: 01-2119457861-32	Flam. Liq. 3; H226 Acute tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 2; H361d STOT SE 3; H335 STOT RE 1; H372 Asp. tox. 1; H304 Aquatic Chronic 3; H412	< 0,08 %

Description of the mixture	Polypropen is also given CAS 9010-79-1 from the supplier. Polyethylen is also given CAS 25213-02-9 from the supplier.
Reason for substance inclusion in the SDS	All components: information provided voluntarily by the supplier.
Substance comments	For substances without REACH registration number in section 3.2, no information has been provided by the subcontractor or manufacturer.

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Emergency telephone number: see section 1.4.
Inhalation	Fresh air and rest. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing. Wash skin with soap and water. Get medical attention if any discomfort continues. Cool skin rapidly with cold water after contact with molten product. Do not remove material that is glued to the skin mechanically as it can cause damage. Get medical attention.
Eye contact	Immediately flush with plenty of water or eyewash solution for up to 10 minutes. Remove contact lenses and open eyes wide apart. By prolonged rinsing, use luke warm water to avoid damage to the eye. Get medical attention if any discomfort continues.

Ingestion	Rinse the mouth. Drink 1-3 glasses of water. Do not induce vomiting. Get medical attention if any discomfort continues.

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

Acute symptoms and effects	Dust-raising handling: Redness. Dust may cause mechanical irritation of the skin. Heated product may cause burns. Dust may cause irritation symptoms such as coughing and a sore throat. Inhalation of vapour from heated chemical may be irritating to the respiratory system. High concentrations can cause coughing, burning and breathing difficulties. Ingestion: May cause stinging and irritation.

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

Other information	Treat symptomatically. No specific information from the manufacturer.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Small fires: Water spray, fog or mist. Powder. Carbon dioxide (CO2). Larger fires: Foam.
Improper extinguishing media	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	The chemical is not classified as flammable. High concentrations of dust may form explosive mixture with air.
Hazardous combustion products	May include, but is not limited to: Carbon dioxide (CO2). Carbon monoxide (CO). Aldehydes. Ketones. Hydrocarbons. Toluene. Alcohols. Styrene.

5.3. Advice for firefighters

Personal protective equipment	Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.
Other information	Containers close to fire should be removed immediately or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Remove all sources of ignition. Provide adequate ventilation.
Personal protection measures	Use protective equipment as referred to in section 8. Avoid dust formation. Avoid inhalation of dust. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Environmental precautionary measures	Do not allow to enter into sewer, water system or soil.

6.3. Methods and material for containment and cleaning up

Clean up	Carefully sweep up and collect. Collect in suitable containers and deliver as waste according to section 13.

6.4. Reference to other sections

Other instructions	See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Provide adequate ventilation. Avoid inhalation of dust and contact with skin and eyes. Use protective equipment as referred to in section 8. Avoid inhalation of vapors produced when the product is heated. Avoid contact with hot/molten material. Risk for slippery floors and tools if spilled out.

Protective safety measures

Safety measures to prevent fire	Avoid the formation of dust. When dust is formed: Take precautionary measures against static discharges. Ground / bond container and receiving equipment. Use only non-sparking tools.
Advice on general occupational hygiene	Do not eat, drink or smoke during work. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a dry place.
Conditions to avoid	High temperature. Protect from sunlight.

Conditions for safe storage

Packaging compatibilities	Polyethylene. Paper. Carton Stainless steel.
Advice on storage compatability	Keep away from: Strong oxidizing agents. Strong alkalis. Strong acids. Halogens.

7.3. Specific end use(s)

Specific use(s)	See section 1.2.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Value	TWA Year
organic dust, total dust		TWA (8h) : 5 mg/m³	
Styrene	CAS No.: 100-42-5	TWA (8h) : 25 ppm TWA (8h) : 105 mg/m³ **Exposure limit letter** Letter code: M	
Other Information about threshold limit values	Explanation of the notations: M = Mutagenic References (laws/regulations): Norwegian regulation on exposure limits: FOR		

	2011-12-06 nr 1358 Forskrift om tiltaks- og grenseverdier (sist endret gjennom FOR-2018-12-20-2186).

8.2. Exposure controls

Precautionary measures to prevent exposure

Technical measures to prevent exposure	Provide adequate ventilation. The personal protective equipment must be CE-marked and the latest version of the standards shall be used. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment. A risk assessment of the work place/work activities (the actual risk) may lead to other control measures. The protection equipment's suitability and durability will depend on application.

Eye / face protection

Eye protection equipment	Description: Use tight fitting goggles if dust is generated. Reference to relevant standard: EN 166 (Personal eye-protection. Specifications).
Additional eye protection measures	Eye wash facilities should be available at the work place. Either a fixed eye wash facility connected to the drinking water (preferably warm water) or a portable disposable unit.

Hand protection

Suitable materials	Hot material: Leather.
Breakthrough time	Comments: Not relevant. The chemical is a solid.
Thickness of glove material	Comments: Not specified by the manufacturer.
Hand protection equipment	Description: Use protective gloves that are suitable for the application. No special material is recommended, as the chemical will not penetrate plastic or rubber. Glove thickness must be chosen in consultation with the glove supplier. When working with hot chemical, use heat resistant gloves. The gloves abilities may vary among the different glove manufacturers. Reference to relevant standard: BS-EN 374 (Protective gloves against chemicals and micro-organisms). BS-EN 420 (Protective gloves. General requirements and test methods). EN 407 (Protective gloves against thermal risks).

Skin protection

Suitable protective clothing	Ordinary workwear.

Respiratory protection

Recommended respiratory protection	Description: Use respiratory equipment with filter, type P1 at risk of inhaling dust. When heated: A/P2 Reference to relevant standard: EN 143 (Respiratory protective devices. Particle filters. Requirements, testing, marking). EN 14387 (Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking).

Appropriate environmental exposure control

Environmental exposure controls	Do not allow to enter into sewer, water system or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid. Granulate.
Colour	Opaque. Varying.
Odour	Slight.
Odour limit	Comments: Not specified by the manufacturer.
pH	Comments: Not relevant.
Melting point / melting range	Comments: Not specified by the manufacturer.
Boiling point / boiling range	Comments: Not specified by the manufacturer.
Flash point	Comments: Not specified by the manufacturer.
Evaporation rate	Comments: Not relevant.
Flammability (solid, gas)	Not specified by the manufacturer.
Lower explosion limit with unit of measurement	Comments: 0,015 kg/m³ (< 63 µm)
Upper explosion limit with units of measurement	Comments: Not specified by the manufacturer.
Vapour pressure	Comments: Not relevant.
Vapour density	Comments: Not relevant.
Relative density	Comments: Not specified by the manufacturer.
Bulk density	Value: ~ 1000 kg/m³
Solubility	Medium: Water Comments: Insoluble.
Partition coefficient: n-octanol/ water	Comments: Not relevant for a mixture.
Spontaneous combustability	Value: ~ 490 °C
Decomposition temperature	Value: < 250 °C
Viscosity	Comments: Not relevant.
Explosive properties	The chemical is not explosive, but dust may form explosive mixtures with air.
Oxidising properties	Not classified as oxidizing.

9.2. Other information

Softening point	Value: 95 -115 °C

Physical hazards

Content of VOC	Value: < 0,5 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Dust explosion hazard. Take precautionary measures against static discharge.

10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Dust may form explosive mixture with air.

10.4. Conditions to avoid

Conditions to avoid	Avoid dust close to ignition sources. Avoid temperatures exceeding 250 °C.

10.5. Incompatible materials

Materials to avoid	Strong oxidizing agents. Strong acids. Strong bases. Halogens.

10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other toxicological data	Test data are available from the supplier/manufacturer.

Other information regarding health hazards

Assessment of acute toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of skin corrosion / irritation, classification	Based on available data, the classification criteria are not met.
Assessment of eye damage or irritation, classification	Based on available data, the classification criteria are not met.
Assessment of respiratory sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of skin sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of germ cell mutagenicity, classification	Based on available data, the classification criteria are not met.
Assessment of carcinogenicity, classification	Based on available data, the classification criteria are not met.
Assessment of reproductive toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ SE, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity RE, classification	Based on available data, the classification criteria are not met.

Assessment of aspiration hazard, classification	Based on available data, the classification criteria are not met.

Symptoms of exposure

In case of ingestion	Not likely to be ingested. However, ingestion may cause irritation and malaise. Abdominal pain.
In case of skin contact	Dust may irritate the skin. The molten product can cause serious burns.
In case of inhalation	Dust may irritate respiratory system. Inhalation of vapour from heated chemical may be irritating to the respiratory system. High concentrations can cause coughing, burning and breathing difficulties.
In case of eye contact	Redness.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish	Value: 3,24 -4,99 mg/l Effect dose concentration : LC50 Test duration: 96 hour(s) Species: Pimephales promelas Comments: Gjennomstrømning. Applies to CAS 100-42-5.
Acute aquatic, algae	Value: 1,4 mg/l Effect dose concentration : EC50 Test duration: 72 hour(s) Species: Pseudokirchneriella subcapitata Comments: Applies to CAS 100-42-5. Value: 0,72 mg/l Effect dose concentration : EC50 Test duration: 96 hour(s) Species: Pseudokirchneriella subcapitata Comments: Applies to CAS 100-42-5.
Acute aquatic, Daphnia	Value: 3,3 -7,4 mg/l Effect dose concentration : EC50 Test duration: 48 hour(s) Species: Daphnia magna Comments: Applies to CAS 100-42-5.
Toxicity to earthworm	Toxicity type: Acute Value: 44 mg/kg Effect dose concentration : NOEC Test duration: 14 day(s) Species: Eisenia foetida Comments: Applies to CAS 100-42-5.
Ecotoxicity	The chemical is not classified as harmful to the environment. Additional test data is available from the supplier/manufacturer.

12.2. Persistence and degradability

Biodegradability	Comments: Not readily biodegradable. Applies to CAS 9003-55-8.

Biological oxygen demand (BOD)	Comments: Below detection limit. BOD (% av ThOD) Applies to CAS 9003-55-8.

12.3. Bioaccumulative potential

Bioaccumulative potential	Low bioaccumulation potential. Applies to CAS 9003-55-8. Log Pow: 2,95. Applies to CAS 100-42-5.
Bioconcentration factor (BCF)	Value: 13,5 Species: Fish Comments: Applies to CAS 100-42-5.

12.4. Mobility in soil

Mobility	Insoluble in water. Low mobility in soil. Applies to CAS 9003-55-8.

12.5. Results of PBT and vPvB assessment

PBT assessment results	Not relevant.
vPvB evaluation results	Not relevant.

12.6. Other adverse effects

Other adverse effects, comments	Do not allow to enter into sewer, water system or soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Recover and reclaim or recycle, if practical. Deliver to authorised waste vendor. The waste code (EWC-Code) is intended as a guide. The user must select a code if the use differs from the one mentioned below.
EWC waste code	EWC waste code: 070299 wastes not otherwise specified Classified as hazardous waste: Nei
Other information	Do not empty into drains.

SECTION 14: Transport information

Dangerous goods	No

14.1. UN number

Comments	Not relevant.

14.2. UN proper shipping name

Comments	Not relevant.

14.3. Transport hazard class(es)

Comments	Not relevant.

14.4. Packing group

Comments	Not relevant.

14.5. Environmental hazards

Comments	Not relevant.

14.6. Special precautions for user

Special safety precautions for user	Not relevant.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Additional information

Additional information	Not known.

SECTION 15: Regulatory information

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

References (laws/regulations)	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments. Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments. Norwegian regulations on waste. no. 930/2004, from the Ministry of Environment. Dangerous Goods regulations

15.2. Chemical safety assessment

Chemical safety assessment performed	No

SECTION 16: Other information

Supplier's notes	The information contained in this SDS must be made available to all those who handle the product.
List of relevant H-phrases (Section 2 and 3)	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H361d Suspected of damaging the unborn child. H372 Causes damage to organs through prolonged or repeated exposure H412 Harmful to aquatic life with long lasting effects.
Key literature references and sources for data	Suppliers Safety data sheet dated: 08.08.2017
Abbreviations and acronyms used	EC50: The effective concentration of substance that causes 50% of the maximum response IBC: Intermediate Bulk Container.

	LC50: Median concentration lethal to 50% of a test population. Log Pow: Partition coefficient: n-octanol / water MARPOL 73/78 is the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("MARPOL" is short for marine pollution and 73/78 short for the years 1973 and 1978.) NOEC: No observed effect concentration PBT: Persistent, Bioaccumulative and Toxic ThOD (Theoretical oxygen demand): Beräknad syreförbrukning (TOD) vPvB: very Persistent and very Bioaccumulative
Information added, deleted or revised	Sections being revised since previous version: 1 (name)
Checking quality of information	This SDS is quality controlled by Kiwa Teknologisk Institutt in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2015.
Version	2
Prepared by	Kiwa Teknologisk Institutt, Norway, b/ Gro Sand.