SAFETY DATA SHEET

FROZONE {FROM BATCH NO. 0951032}

Compilation date: 20/08/2019

Revision No: 1.0

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

1.1. Product identifier

Product name: FROZONE {FROM BATCH NO. 0951032}

REACH registered number(s): EXEMPT - MIXTURE

Product code: 095

UFI: DT5M-NG8R-NV08-FADS

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

Use of substance / mixture: PC35: Washing and cleaning products (including solvent based products).

1.3. Details of the supplier of the safety data sheet

Company name: Advanced Engineering Ltd
Guardian House
Stroudley Road
Basingstoke
Hampshire
RG24 8NL
United Kingdom

Tel: +44(0)1256460300

Fax: +44(0)1256462266

Email: sales@advancedengineering.co.uk

1.4. Emergency telephone number

Emergency tel: Advanced Engineering Ltd (24hr) +44 (0)203 394 9889

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Eye Irrit. 2: H319; Skin Irrit. 2: H315

Most important adverse effects: Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

Label elements:

Hazard statements: H315: Causes skin irritation.
H319: Causes serious eye irritation.

Hazard pictograms: GHS07: Exclamation mark

Signal words: Warning

[cont...]

Precautionary statements: P262: Do not get in eyes, on skin, or on clothing.

P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective clothing, eye protection, face protection.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Haz. ingredients (label): REACTION PRODUCTS OF C12-18-(EVEN NUMBERED)-ALKYLAMINES AND ACRYLIC ACID AND SODIUM HYDROXIDE

2.3. Other hazards

Other hazards: Not applicable.

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

PROPYLENE GLYCOL - REACH registered number(s): 01-2119456809-23-XXXX

EINECS	CAS	PBT / WEL	CLP Classification	Percent
200-338-0	57-55-6	Substance with a Community workplace exposure limit.	-	30-50%

2-BUTOXYETHANOL

203-905-0	111-76-2	-	Acute Tox. 4: H332; Acute Tox. 4: H312; Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315	1-10%

D P M - REACH registered number(s): 01-2119450011-60-XXXX

252-104-2	34590-94-8	Substance with a Community workplace exposure limit.	-	1-10%

REACTION PRODUCTS OF C12-18-(EVEN NUMBERED)-ALKYLAMINES AND ACRYLIC ACID AND SODIUM HYDROXIDE - REACH registered number(s): 01-2119980672-29-0000

939-647-7	1474044-68-2	-	Skin Irrit. 2: H315; Eye Dam. 1: H318	1-10%

SODIUM HYDROXIDE

215-185-5	1310-73-2	-	Skin Corr. 1A: H314	1-10%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 5 minutes. Consult a doctor.

[cont...]

Ingestion: Wash out mouth with water. If conscious, give half a litre of water to drink immediately. Consult a doctor.

Inhalation: Move to fresh air in case of accidental inhalation of vapours.

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after long-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Remove all incompatible materials as outlined in section 10 of SDS.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water. Avoid all incompatible materials in clean-up procedure - see section 10 of SDS. Refer to section 13 of SDS for suitable method of disposal.

[cont...]

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): PC35: Washing and cleaning products (including solvent based products).

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

PROPYLENE GLYCOL

Workplace exposure limits: **Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	150 ppm (474mg/m³)	-	-	-

2-BUTOXYETHANOL

UK	25 ppm	50 ppm	-	-

D P M

UK	50 ppm (308 mg/m³)	-	-	-

SODIUM HYDROXIDE

UK	-	2 mg/m3	-	-

DNEL/PNEC Values

Hazardous ingredients:

PROPYLENE GLYCOL

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	168 mg/m³	Workers	Systemic
DNEL	Inhalation	10 mg/m³	Workers	Local
DNEL	Inhalation	50 mg/m³	Consumers	Systemic
DNEL	Inhalation	10 mg/m³	Consumers	Local

[cont...]

PNEC	Fresh water	260 mg/l	-	-
PNEC	Marine water	26 mg/l	-	-
PNEC	STP	20,000 mg/l	-	-
PNEC	Fresh water sediments	572 mg/kg	-	-
PNEC	Marine sediments	57.2 mg/kg	-	-
PNEC	Soil (agricultural)	50 mg/kg	-	-

D P M

Type	Exposure	Value	Population	Effect
DNEL	Dermal (repeated dose)	283 mg/kg/day	Workers	Systemic
DNEL	Inhalation (repeated dose)	308 mg/kg	Workers	Systemic
DNEL	Dermal (repeated dose)	121 mg/kg/day	Consumers	Systemic
DNEL	Inhalation (repeated dose)	37.2 mg/m³	Consumers	Systemic
DNEL	Oral (repeated dose)	36 mg/kg/day	Consumers	Systemic
PNEC	Fresh water	19 mg/l	-	-
PNEC	Marine water	1.9 mg/l	-	-
PNEC	Intermittent Release	190 mg/l	-	-
PNEC	Microorganisms in sewage treatment	4168 mg/l	-	-
PNEC	Fresh water sediments	70.2 mg/kg/day	-	-
PNEC	Marine sediments	7.02 m/kg/day	-	-
PNEC	Soil (agricultural)	2.74 mg/kg/day	-	-

REACTION PRODUCTS OF C12-18-(EVEN NUMBERED)-ALKYLAMINES AND ACRYLIC ACID AND SODIUM HYDROXIDE

Type	Exposure	Value	Population	Effect
DNEL	Dermal	5.3 mg/kgbw/day	Workers	Systemic
DNEL	Inhalation	3.8 mg/m3	Workers	Systemic
DNEL	Dermal	2.7 mg/kgbw/day	Consumers	Systemic
DNEL	Inhalation	0.9 mg/m3	Consumers	Systemic
DNEL	Oral	0.3 mg/kgbw/day	Consumers	Systemic
PNEC	Fresh water	0.03 mg/l	-	-
PNEC	Marine water	0.003 mg/l	-	-
PNEC	Marine water - Intermittent	0.042 mg/l	-	-
PNEC	Fresh water sediments	0.108 mg/kgdw	-	-
PNEC	Marine sediments	0.0108 mg/kgdw	-	-
PNEC	Soil (agricultural)	0.0041 mg/kg dw	-	-
PNEC	Microorganisms in sewage treatment	9.9 mg/l	-	-

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure all engineering measures mentioned in section 7 of SDS are in place.

[cont...]

Respiratory protection: Respiratory protection not required.

Hand protection: Nitrile gloves. EN 374-1:2003

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Environmental: Prevent from entering in public sewers or the immediate environment. Ensure all engineering measures mentioned in section 7 of SDS are in place.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Green-blue

Odour: Irritating odour

Evaporation rate: Moderate

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Miscible

Boiling point/range°C: >35 **Relative density:** 1.060

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

[cont...]

Hazardous ingredients:

PROPYLENE GLYCOL

DERMAL	RBT	LD50	> 10,000	mg/kg
ORL	RAT	LD50	20,000	mg/kg

2-BUTOXYETHANOL

IVN	RAT	LD50	307	mg/kg
ORL	MUS	LD50	1230	mg/kg
ORL	RAT	LD50	470	mg/kg

D P M

DERMAL	RBT	LD50	9510	mg/kg
ORAL	RAT	LD50	5000	mg/kg
VAPOURS	RAT	LC50	3.35	mg/l

REACTION PRODUCTS OF C12-18-(EVEN NUMBERED)-ALKYLAMINES AND ACRYLIC ACID AND SODIUM HYDROXIDE

DERMAL	RAT	LD50	> 5,000	mg/kg
ORAL	RAT	LD50	31,300	mg/kg

SODIUM HYDROXIDE

IPR	MUS	LD50	40	mg/kg
ORL	RBT	LDLO	500	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after long-term exposure.

Other information: Not applicable.

Section 12: Ecological information

[cont...]

12.1. Toxicity

Hazardous ingredients:

PROPYLENE GLYCOL

GREEN ALGA (Selenastrum capricornutum)	96H EC50	19000	mg/l
MYSID SHRIMP (Mysidopsis bahia)	96H LC50	18800	mg/l
Ceriodaphnia dubia	48H EC50	18340	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	40613	mg/l

D P M

Daphnia magna	48H EC50	1919	mg/l
FISH	96H LC50	10000	mg/l
Scenedesmus Subspicatus	72H EC50	6999	mg/l

REACTION PRODUCTS OF C12-18-(EVEN NUMBERED)-ALKYLAMINES AND ACRYLIC ACID AND SODIUM HYDROXIDE

ALGAE	72H ErC50	9.3	mg/l
Daphnia magna	48H EC50	1.71	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	4.2	mg/l

12.2. Persistence and degradability

Persistence and degradability: The biodegradability of the surfactants contained in this product are in accordance with the requirements of the EU Detergent Regulation (EC/648/2004). Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Soluble in water. Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: Recovery of components used for pollution abatement.

Waste code number: 16 03 03

Disposal of packaging: Clean with water. Dispose of as normal industrial waste. May be reused following decontamination.

[cont...]

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

Specific regulations: Regulation (EC) No 1272/2008 of the European Parliament and of the Council of the 16th December 2008 on Classification, labeling and packaging of Substances and Mixtures. The biodegradability of the surfactants contained in this product are in accordance with the requirements of the EU Detergent Regulation (EC/648/2004).

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.