

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 01/11/2023 Revision date: 01/11/2023 Supersedes version of: 27/11/2021 Version: 2.0

SECTION 1: Identification of the s	substance/mixture and of the company/undertaking
1.1. Product identifier	
Product form Trade name Product code	: Mixture : Cheddar Cheese Flavouring Natural ZY00380/1NE : ZY00380/1NE
1.2. Relevant identified uses of the su	ubstance or mixture and uses advised against
1.2.1. Relevant identified uses	
Use of the substance/mixture	: Food and/or beverage Flavouring
1.2.2. Uses advised against	
Restrictions on use	: Not for direct consumption
1.3. Details of the supplier of the safe	ety data sheet
H E Stringer Flavours Ltd Icknield Way Industrial Estate HP23 4JZ Tring Hertfordshire United Kingdom T +44 (0)1442 822621 option 1 technical@stringer-flavour.com - www.stringe	<u>er-flavour.com</u>
1.4. Emergency telephone number	
Emergency number	: +44 (0)1442 822621
2.1. Classification of the substance of Classification according to Regulation (EC Skin corrosion/irritation, Category 1, Sub-Cat Full text of H- and EUH-statements: see sect	C) No. 1272/2008 [CLP] tegory 1B H314
Adverse physicochemical, human health a Causes severe skin burns and eye damage.	
2.2. Label elements	
Labelling according to Regulation (EC) No	). 1272/2008 [CLP]
Hazard pictograms (CLP)	: GHS05
Signal word (CLP) Contains Hazard statements (CLP) Precautionary statements (CLP)	<ul> <li>Danger</li> <li>butyric acid</li> <li>H314 - Causes severe skin burns and eye damage.</li> <li>P260 - Do not breathe vapours.</li> <li>P264 - Wash hands, forearms and face thoroughly after handling.</li> <li>P280 - Wear protective clothing, eye protection, face protection.</li> <li>P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</li> <li>P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.</li> <li>Rinse skin with water or shower.</li> <li>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing</li> </ul>

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Propylene glycol (57-55-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
butyric acid (107-92-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
hexanoic acid (142-62-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

# SECTION 3: Composition/information on ingredients

### 3.1. Substances

# Not applicable

# 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
butyric acid	CAS-No.: 107-92-6 EC-No.: 203-532-3 EC Index-No.: 607-135-00-X	5 – 10	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314
hexanoic acid	CAS-No.: 142-62-1 EC-No.: 205-550-7	1 – 5	Skin Corr. 1C, H314 Eye Dam. 1, H318
Diacetyl	CAS-No.: 431-03-8 EC-No.: 207-069-8	< 1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:vapour), H331

Full text of H- and EUH-statements: see section 16

# **SECTION 4: First aid measures**

4.1. Description of first aid measures	;
First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	<ul> <li>Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.</li> </ul>
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.
4.2. Most important symptoms and e	ffects, both acute and delayed
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

Treat symptomatically.

SECTION 5: Firefighting measures				
5.1. Extinguishing media				
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.			
5.2. Special hazards arising from the substance or mixture				
Hazardous decomposition products in case of fire	: Toxic fumes may be released.			
5.3. Advice for firefighters				
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.			

SECTION 6: Accidental release measures				
6.1. Personal precautions, protective equipment and emergency procedures				
6.1.1. For non-emergency personnel				
Emergency procedures	Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.			
6.1.2. For emergency responders				
Protective equipment :	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".			
6.2. Environmental precautions				
Avoid release to the environment.				
6.3. Methods and material for containment an	nd cleaning up			
Methods for cleaning up	Take up liquid spill into absorbent material. Dispose of materials or solid residues at an authorized site.			
6.4. Reference to other sections				

For further information refer to section 13.

SECTION 7: Handling and storage				
7.1. Precautions for safe handling				
, and the second s	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.			
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.			
7.2. Conditions for safe storage, including any incompatibilities				
Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool.			

7.3. Specific end use(s)

No additional information available

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

Propylene glycol (57-55-6)		
United Kingdom - Occupational Exposure Limits		
Local name	Propane-1,2-diol	
WEL TWA (OEL TWA) [1]	474 mg/m <sup>3</sup> 10 mg/m <sup>3</sup>	
WEL TWA (OEL TWA) [2]	150 ppm	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
Diacetyl (431-03-8)		
United Kingdom - Occupational Exposure Limits		
Local name	Diacetyl (Butanedione)	
WEL TWA (OEL TWA) [1]	0.07 mg/m³	
WEL TWA (OEL TWA) [2]	0.02 ppm	
WEL STEL (OEL STEL)	0.36 mg/m <sup>3</sup>	
WEL STEL (OEL STEL) [ppm]	0.1 ppm	
Regulatory reference	EH40/2005 (Third edition, 2018). HSE	

# 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):



### 8.2.2.1. Eye and face protection

Eye protection: Safety glasses

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Eye protection				
Туре	Field of application	Characteristics	Standard	
Safety goggles	Droplet, Dust	clear, Plastic	EN 166 1B3	
8.2.2.2. Skin protection				
Skin and body protection				
Туре			Standard	
Lab coat			ASTM F903	

# Hand protection:

Protective gloves against chemicals (EN 374)

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	5 (> 240 minutes)	0.20-0.30	2 (< 1.5)	EN 420, EN 16523-1, EN ISO 374-1, EN 374-2, EN 374-4, EN ISO 374-5

### 8.2.2.3. Respiratory protection

# Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection				
Device	Filter type	Condition	Standard	
Powered Air-Purifying Respirator (PAPR)	Filter AX (brown), Filter P (white), Type A - High-boiling (>65 °C) organic compounds	Protection for Liquid particles, Protection for Solid particles, Short term exposure	EN 12941	

### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

### Environmental exposure controls:

Avoid release to the environment.

# **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state Colour	: Liquid : Not available
Odour	: Characteristic. Conforms to Standard.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 60 °C
Auto-ignition temperature	: Not available

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Refractive index

: 1.42 – 1.44

# **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

# 10.2. Chemical stability Stable under normal conditions.

**10.3. Possibility of hazardous reactions** 

No dangerous reactions known under normal conditions of use.

**10.4. Conditions to avoid** 

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

**10.6. Hazardous decomposition products** 

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (dermal)	Not classified Not classified Not classified
Oleic acid (112-80-1)	
LD50 oral rat	> 19200 mg/kg (Rat, Oral)
Propylene glycol (57-55-6)	
LD50 oral rat	22000 mg/kg (Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (24 h, Rabbit, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 44.9 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 7 day(s))

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Propylene glycol (57-55-6)	
ATE CLP (oral)	22000 mg/kg bodyweight
butyric acid (107-92-6)	
LD50 oral rat	1632 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	1630 mg/kg bodyweight
LD50 dermal rabbit	6096 mg/kg bodyweight (Equivalent or similar to OECD 402, 14 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.1 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 7 day(s))
ATE CLP (oral)	1630 mg/kg bodyweight
ATE CLP (dermal)	6096 mg/kg bodyweight
hexanoic acid (142-62-1)	
LD50 oral rat	6440 mg/kg bodyweight (Rat, Male, Experimental value, Oral, 14 day(s))
LD50 oral	4000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 1.368 mg/l (IRT (inhalation risk test), 8 h, Rat, Male, Experimental value, (maximum achievable concentration), Inhalation (vapours))
ATE CLP (oral)	6440 mg/kg bodyweight
Diacetyl (431-03-8)	
LD50 oral	1580 mg/kg bodyweight
LC50 Inhalation - Rat (Vapours)	3 mg/l/4h
ATE CLP (oral)	1580 mg/kg bodyweight
ATE CLP (vapours)	3 mg/l/4h
Skin corrosion/irritation	: Causes severe skin burns.
Propylene glycol (57-55-6)	
рН	6.5 – 7.5 (50 %)
butyric acid (107-92-6)	
рН	2 (50 %, 25 °C, DIN 19268)
hexanoic acid (142-62-1)	
pH	4 (1.2 %)
Serious eye damage/irritation	: Assumed to cause serious eye damage
Propylene glycol (57-55-6)	
pH	6.5 – 7.5 (50 %)
butyric acid (107-92-6)	
рН	2 (50 %, 25 °C, DIN 19268)
hexanoic acid (142-62-1)	
pH	4 (1.2 %)
Respiratory or skin sensitisation Germ cell mutagenicity	: Not classified : Not classified

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Oleic acid (112-80-1)	
Viscosity, kinematic	29.213 mm²/s
Propylene glycol (57-55-6)	
Viscosity, kinematic	41.426 mm²/s
butyric acid (107-92-6)	
Viscosity, kinematic	1.74 mm²/s
hexanoic acid (142-62-1)	
Viscosity, kinematic	10.003 mm²/s (20 °C)
11.2. Information on other hazards	
11.2.1. Endocrine disrupting properties	
No additional information available	

# 11.2.2. Other information

Other information

: H.E. Stringer Flavours do not test on animals, this is historical information

# **SECTION 12: Ecological information**

12.1. Toxicity	
Hazardous to the aquatic environment, short-term : (acute)	Before neutralisation, the product may represent a danger to aquatic organisms. Not classified Not classified
Oleic acid (112-80-1)	
LC50 - Fish [1]	205 mg/l (96 h, Pimephales promelas, Static system)
Propylene glycol (57-55-6)	
LC50 - Fish [1]	40613 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)
ErC50 algae	24200 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
butyric acid (107-92-6)	
LC50 - Fish [1]	77 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	51.25 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	45.1 mg/l (DIN 38412-9, Desmodesmus subspicatus, Static system, Fresh water, Read- across, Biomass)
hexanoic acid (142-62-1)	
LC50 - Fish [1]	88 mg/l (96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

hexanoic acid (142-62-1)	
EC50 - Crustacea [1]	72 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi- static system, Fresh water, Read-across, GLP)
EC50 72h - Algae [1]	52.3 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	56.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	56.4 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)
LOEC (chronic)	40.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	17.9 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

# 12.2. Persistence and degradability

Oleic acid (112-80-1)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Chemical oxygen demand (COD)	2.25 g O <sub>2</sub> /g substance
ThOD	2.89 g O <sub>2</sub> /g substance
BOD (% of ThOD)	> 0.5 (5 day(s), Literature study)
Propylene glycol (57-55-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.96 – 1.08 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.63 g O <sub>2</sub> /g substance
ThOD	1.69 g O <sub>2</sub> /g substance
butyric acid (107-92-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Chemical oxygen demand (COD)	1.95 g O <sub>2</sub> /g substance
ThOD	1.818 g O <sub>2</sub> /g substance
hexanoic acid (142-62-1)	
Persistence and degradability	Readily biodegradable in water.

# 12.3. Bioaccumulative potential

Oleic acid (112-80-1)	
Partition coefficient n-octanol/water (Log Pow)	5.24 – 7.18 (QSAR)
Propylene glycol (57-55-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.07 (Experimental value, EU Method A.8: Partition Coefficient, 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.
butyric acid (107-92-6)	
BCF - Other aquatic organisms [1]	3.162 (BCFBAF v3.00, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	1.1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

hexanoic acid (142-62-1)	
BCF - Fish [1]	234 – 288 (OECD 305: Bioconcentration: Flow-Through Fish Test, 28 day(s), Danio rerio, Flow-through system, Fresh water, Read-across, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.75 (Weight of evidence approach, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
12.4. Mobility in soil	
Oleic acid (112-80-1)	
Surface tension	0.033 N/m (20 °C)
Ecology - soil	Adsorbs into the soil.
Propylene glycol (57-55-6)	
Surface tension	71.6 mN/m (21.5 °C, 1.01 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.46 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.
butyric acid (107-92-6)	
Surface tension	68.5 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.419 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.
hexanoic acid (142-62-1)	
Surface tension	23.4 N/m (70 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.22 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.
12.5. Results of PBT and vPvB assessment	

Component	
Propylene glycol (57-55-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
butyric acid (107-92-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
hexanoic acid (142-62-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

# 12.6. Endocrine disrupting properties

No additional information available

# 12.7. Other adverse effects

No additional information available

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

13.1. Waste treatment methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport information	n
In accordance with ADR / IMDG / IATA / ADN /	RID
14.1. UN number or ID number	
UN-No. (ADR) UN-No. (IMDG) UN-No. (IATA) UN-No. (ADN) UN-No. (RID)	<ul> <li>: UN 3265</li> </ul>
14.2. UN proper shipping name	
Proper Shipping Name (ADR) Proper Shipping Name (IMDG) Proper Shipping Name (IATA) Proper Shipping Name (ADN) Proper Shipping Name (RID) Transport document description (ADR) Transport document description (IMDG) Transport document description (IATA) Transport document description (ADN)	<ul> <li>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid)</li> <li>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid)</li> <li>Corrosive liquid, acidic, organic, n.o.s. (butyric acid; hexanoic acid)</li> <li>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid)</li> <li>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid)</li> <li>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid)</li> <li>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid 8, II, (E)</li> <li>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid 8, II</li> <li>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid 8, II</li> <li>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid), 8, II</li> <li>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid; hexanoic acid), 8, II</li> </ul>
Transport document description (RID)	<ul> <li>UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (butyric acid ; hexanoic acid 8, II</li> </ul>

# 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) Danger labels (ADR)



#### IMDG Transport

Transport hazard class(es) (IMDG) Danger labels (IMDG)

IATA Transport hazard class(es) (IATA) Danger labels (IATA)



Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>ADN</b> Transport hazard class(es) (ADN) Danger labels (ADN)	
<b>RID</b> Transport hazard class(es) (RID) Danger labels (RID)	
14.4. Packing group	
Packing group (ADR) Packing group (IMDG) Packing group (IATA) Packing group (ADN)	: II : II : II : II
Packing group (RID)	: 11
14.5. Environmental hazards	
Dangerous for the environment	: No : No
Marine pollutant Other information	NO Supplementary information available
14.6 Special precautions for user	
14.6. Special precautions for user	
Overland transport	· C3
<b>Overland transport</b> Classification code (ADR)	: C3 : 274
<b>Overland transport</b> Classification code (ADR) Special provisions (ADR)	: 274
<b>Overland transport</b> Classification code (ADR) Special provisions (ADR) Limited quantities (ADR)	
<b>Overland transport</b> Classification code (ADR) Special provisions (ADR)	: 274 : 1I
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR)	: 274 : 11 : E2 : P001, IBC02 : MP15
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR)	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR)	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR)	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT
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Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR)	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT : 2
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Hazard identification number (Kemler No.)	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT : 2 : 80 : <b>80</b>
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Hazard identification number (Kemler No.) Orange plates Tunnel restriction code (ADR) EAC code	: $274$ : $11$ : $E2$ : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT : 2 : 80 : $80$ : $80$ : E : 2X
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Hazard identification number (Kemler No.) Orange plates Tunnel restriction code (ADR)	: 274 : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT : 2 : 80 : $80$ : E
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Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Hazard identification number (Kemler No.) Orange plates Tunnel restriction code (ADR) EAC code APP code <b>Transport by sea</b> Special provisions (IMDG)	: $274$ : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT : 2 : 80 : 80 : 80 : E : 2X : B
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Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Hazard identification number (Kemler No.) Orange plates Tunnel restriction code (ADR) EAC code APP code <b>Transport by sea</b> Special provisions (IMDG) Limited quantities (IMDG) Excepted quantities (IMDG)	: $274$ : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT : 2 : 80 : $80$ : E : 2X : B : 274 : 1L : E2
Overland transport Classification code (ADR) Special provisions (ADR) Limited quantities (ADR) Excepted quantities (ADR) Packing instructions (ADR) Mixed packing provisions (ADR) Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions (ADR) Tank code (ADR) Vehicle for tank carriage Transport category (ADR) Hazard identification number (Kemler No.) Orange plates Tunnel restriction code (ADR) EAC code APP code <b>Transport by sea</b> Special provisions (IMDG) Limited quantities (IMDG)	: $274$ : 11 : E2 : P001, IBC02 : MP15 : T11 : TP2, TP27 : L4BN : AT : 2 : 80 : $80$ : E : 2X : B : 274 : 1L

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Tank instructions (IMDG)	: T11
Tank special provisions (IMDG)	: TP2, TP27
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Segregation (IMDG)	: SG36, SG49
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes.
Air transport	
PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L
Inland waterway transport	
Classification code (ADN)	: C3
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0
Rail transport	
Classification code (RID)	: C3
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T11
Portable tank and bulk container special provisions (RID)	: TP2, TP27
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

### 14.7. Maritime transport in bulk according to IMO instruments

# Not applicable

# **SECTION 15: Regulatory information**

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

### 15.1.1. EU-Regulations

# **REACH Annex XVII (Restriction List)**

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

### **REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

### **REACH Candidate List (SVHC)**

Contains no substance(s) listed on the REACH Candidate List

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### **PIC Regulation (Prior Informed Consent)**

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

# Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

#### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. National regulations

#### Germany

Water hazard class (WGK) Hazardous Incident Ordinance (12. BImSchV)	<ul> <li>Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV).</li> <li>Is not subject of the Hazardous Incident Ordinance (12. BImSchV)</li> </ul>
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: None of the components are listed
Denmark	
Classification remarks	: Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

# 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

# **SECTION 16: Other information**

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	

# Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:		
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
РВТ	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUH-statements:		
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Flam. Liq. 2	Flammable liquids, Category 2	
H225	Highly flammable liquid and vapour.	
H302	Harmful if swallowed.	
H314	Causes severe skin burns and eye damage.	
H318	Causes serious eye damage.	
H331	Toxic if inhaled.	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C	