

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

Revision Date 17-Mar-2024 Revision Number 3

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: E. coli lysis buffer-II

Cat No. : J62613

Unique Formula Identifier (UFI) 27JJ-56GJ-XX06-VTGV

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

Recommended Use Laboratory chemicals. Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company

Avocado Research Chemicals Ltd. (Part of Thermo Fisher Scientific)

Shore Road, Heysham Lancashire, LA3 2XY, United Kingdom

Office Tel: +44 (0) 1524 850506 Office Fax: +44 (0) 1524 850608

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

Poison Centre - Emergency information services

Ireland: National Poisons Information Centre (NPIC) -

01 809 2166 (8am-10pm, 7 days a week)

Malta: +356 2395 2000 Cyprus: +357 2240 5611

# **SECTION 2: HAZARDS IDENTIFICATION**

### 2.1. Classification of the substance or mixture

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

# Physical hazards

Based on available data, the classification criteria are not met

ALFAAJ62613

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### **Health hazards**

Serious Eye Damage/Eye Irritation

Category 2 (H319)

### **Environmental hazards**

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

### 2.2. Label elements



**Signal Word** 

Warning

### **Hazard Statements**

H319 - Causes serious eye irritation

### **Precautionary Statements**

P280 - Wear eye protection/ face protection

P264 - Wash face, hands and any exposed skin thoroughly after handling

P337 + P313 - If eye irritation persists: Get medical advice/attention

# 2.3. Other hazards

Contains a known or suspected endocrine disruptor Included in the list established in accordance with Article 59(1) for having endocrine disrupting properties Contains a substance on the National Authorities Endocrine Disruptor Lists

# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### 3.2. Mixtures

Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Water	7732-18-5	231-791-2	98.02	-
Poly(oxy-1,2-ethanediyl), .alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]- .omegahydroxy-	9002-93-1		1	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)
Sodium chloride	7647-14-5	231-598-3	0.82	-
Sodium phosphate dibasic	7558-79-4	231-448-7	0.14	-
Potassium chloride	7447-40-7	231-211-8	0.02	-

Full text of Hazard Statements: see section 16

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4.1. Description of first aid measures

**General Advice** If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,

call a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if

symptoms occur.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

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

None reasonably foreseeable.

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

Notes to Physician Treat symptomatically.

# **SECTION 5: FIREFIGHTING MEASURES**

### 5.1. Extinguishing media

### Suitable Extinguishing Media

Not combustible.

# Extinguishing media which must not be used for safety reasons

No information available.

### 5.2. Special hazards arising from the substance or mixture

None reasonably foreseeable.

### **Hazardous Combustion Products**

Hydrogen chloride, Oxides of phosphorus, Potassium oxides, Sodium oxides.

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

# **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

### 6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

# 6.3. Methods and material for containment and cleaning up

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Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

# **SECTION 7: HANDLING AND STORAGE**

### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Class 12

### 7.3. Specific end use(s)

Use in laboratories

# **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

# 8.1. Control parameters

### **Exposure limits**

List source(s):

# **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Sodium chloride		DNEL = 295.52mg/kg		DNEL = 295.52mg/kg
7647-14-5 ( 0.82 )		bw/day		bw/day
Potassium chloride		DNEL = 910mg/kg		DNEL = 303mg/kg
7447-40-7 ( 0.02 )		bw/day		bw/day

	Component	Acute effects local	Acute effects	Chronic effects local	Chronic effects
		(Inhalation)	systemic (Inhalation)	(Inhalation)	systemic (Inhalation)
Ī	Sodium chloride		DNEL = 2068.62mg/m <sup>3</sup>		$DNEL = 2068.62 \text{mg/m}^3$
	7647-14-5 ( 0.82 )		_		
	Potassium chloride		DNEL = 5320mg/m <sup>3</sup>		$DNEL = 1064 mg/m^3$

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7447-40-7 ( 0.02 )				
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### **Predicted No Effect Concentration (PNEC)**

See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
Sodium chloride	PNEC = 5mg/L			PNEC = 500mg/L	PNEC = 4.86mg/kg
7647-14-5 ( 0.82 )					soil dw
Sodium phosphate dibasic	PNEC = 0.05mg/L		PNEC = 0.5mg/L	PNEC = 50mg/L	
7558-79-4 ( 0.14 )					
Potassium chloride	PNEC = 0.1mg/L		PNEC = 1mg/L	PNEC = 10mg/L	
7447-40-7 ( 0.02 )	_				

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Sodium phosphate dibasic	PNEC = 0.005mg/L				
7558-79-4 ( 0.14 )					
Potassium chloride	PNEC = 0.1mg/L				
7447-40-7 ( 0.02 )					

### 8.2. Exposure controls

### **Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber	See manufacturers	-	EN 374	(minimum requirement)
Nitrile rubber	recommendations			
Neoprene				
PVC				

Skin and body protection Long sleeved clothing.

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits

are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particulates filter conforming to EN 143

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure

limits are exceeded or if irritation or other symptoms are experienced.

**Recommended half mask:-** Particle filtering: EN149:2001 When RPE is used a face piece Fit Test should be conducted

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**Environmental exposure controls** No information available.

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

Physical State Liquid

Appearance Colorless

Odor
Odor No information available
Odor Threshold No data available
Melting Point/Range No data available
Softening Point No data available
Boiling Point/Range No information available
Flammability (liquid) No data available

Flammability (solid.gas) Not applicable Liquid

**Explosion Limits** No data available

Flash Point No information available Method - No information available

Autoignition TemperatureNo data availableDecomposition TemperatureNo data available

**pH** 7.4

Viscosity No data available

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component log Pow
Poly(oxy-1,2-ethanediyl), 2.7

.alpha.-[4-(1,1,3,3-tetramethylbutyl)phe

nyl]-.omega.-hydroxy-

Vapor Pressure23 hPa @ 20 °CDensity / Specific GravityNo data available

Bulk DensityNot applicableLiquidVapor DensityNo data available(Air = 1.0)

Particle characteristics Not applicable (liquid)

#### 9.2. Other information

# **SECTION 10: STABILITY AND REACTIVITY**

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization No information available.
Hazardous Reactions None under normal processing.

10.4. Conditions to avoid

Incompatible products. Excess heat.

10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

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Hydrogen chloride. Oxides of phosphorus. Potassium oxides. Sodium oxides.

# **SECTION 11: TOXICOLOGICAL INFORMATION**

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

### **Product Information**

(a) acute toxicity;

OralBased on available data, the classification criteria are not metDermalBased on available data, the classification criteria are not metInhalationBased on available data, the classification criteria are not met

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Poly(oxy-1,2-ethanediyl), .alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]- .omegahydroxy-	1800 mg/kg(Rat)	-	-
Sodium chloride	LD50 = 3 g/kg ( Rat )	LD50 > 10000 mg/kg ( Rabbit )	LC50 > 42 mg/L (Rat) 1 h
Sodium phosphate dibasic	LD50 = 17 g/kg (Rat)	-	-
Potassium chloride	LD50 = 2600 mg/kg (Rat)	-	-

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

Respiratory No data available Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Symptoms / effects,both acute and No information available. delayed

11.2. Information on other hazards

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### **Endocrine Disrupting Properties**

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

# **SECTION 12: ECOLOGICAL INFORMATION**

### 12.1. Toxicity **Ecotoxicity effects**

Component Freshwater Fish Water Flea Freshwater Algae Poly(oxy-1,2-ethanediyl), LC50 = 8.9 mg/L 96HEC50 = 26 mg/L 48hLC50 = 4.0 mg/l 96H.alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-(Pimephales promelus) Sodium chloride Pimephals prome: LC50: 7650 EC50: 1000 mg/L/48h mg/L/96h Potassium chloride Lepomis macrochirus: LC50: EC50: 825 mg/L/48h EC50: 2500 mg/L/72h 1060 mg/L /96h Pimephales promelas: LC50: 750 - 1020 mg/L /96h

Component	Microtox	M-Factor
Poly(oxy-1,2-ethanediyl),	-	
.alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]-		
.omegahydroxy-		

### 12.2. Persistence and degradability

**Persistence** Miscible with water, Persistence is unlikely, based on information available.

Component	Degradability
Poly(oxy-1,2-ethanediyl),	60% >28 days
.alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]omegahydroxy-	
9002-93-1 (1)	

#### 12.3. Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Poly(oxy-1,2-ethanediyl),	2.7	No data available
.alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]-		
.omegahydroxy-		

### 12.4. Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

# 12.5. Results of PBT and vPvB assessment

No data available for assessment.

### 12.6. Endocrine disrupting properties

**Endocrine Disruptor Information** Assess endocrine disrupting

properties for the environment

Substance 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. Contains a substance on the National Authorities Endocrine Disruptor Lists.

Component	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances
Poly(oxy-1,2-ethanediyl),	Group III Chemical	-
.alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]omega.	·hy	
droxy-		

Component	EU National Authorities Endocrine Disruptor Lists - Environment	Japan - Endocrine Disruptor Information
Poly(oxy-1,2-ethanediyl),	List I	-
.alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]omegahy		
droxy-		

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9002-93-1 ( 1 )

12.7. Other adverse effects

Persistent Organic Pollutant

Persistent Organic Pollutant
Ozone Depletion Potential

This product does not contain any known or suspected substance
This product does not contain any known or suspected substance

# **SECTION 13: DISPOSAL CONSIDERATIONS**

13.1. Waste treatment methods

Waste from Residues/Unused

Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives

on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but

application specific.

Other Information Waste codes should be assigned by the user based on the application for which the product

was used. Do not empty into drains.

# **SECTION 14: TRANSPORT INFORMATION**

IMDG/IMO Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

ADR Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

IATA Not regulated

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards No hazards identified

**14.6. Special precautions for user** No special precautions required.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable, packaged goods

# **SECTION 15: REGULATORY INFORMATION**

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

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# **International Inventories**

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Water	7732-18-5	231-791-2	ı	ı	X	X	KE-35400	Χ	-
Poly(oxy-1,2-ethanediyl),	9002-93-1	-	-	-	X	X	KE-33568	Χ	X
.alpha[4-(1,1,3,3-tetramethylbutyl									
)phenyl]omegahydroxy-									
Sodium chloride	7647-14-5	231-598-3	ı	ı	X	X	KE-31387	Χ	X
Sodium phosphate dibasic	7558-79-4	231-448-7	ı	ı	X	Χ	KE-12344	Х	X
Potassium chloride	7447-40-7	231-211-8	-	-	X	Χ	KE-29086	Х	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Water	7732-18-5	X	ACTIVE	X	-	X	Χ	X
Poly(oxy-1,2-ethanediyl), .alpha[4-(1,1,3,3-tetramethylbutyl	9002-93-1	Х	ACTIVE	Х	-	Х	Х	Х
)phenyl]omegahydroxy-								
Sodium chloride	7647-14-5	X	ACTIVE	X	-	X	X	X
Sodium phosphate dibasic	7558-79-4	X	ACTIVE	Х	-	X	X	Х
Potassium chloride	7447-40-7	X	ACTIVE	Х	-	Χ	X	X

**Legend:** X - Listed '-' - Not Listed **KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

# Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	=
Poly(oxy-1,2-ethanediyl), .alpha[4-(1,1,3,3-tetramethylbutyl) phenyl]omegahydroxy-	9002-93-1	Endocrine disrupting properties (Article 57(f) - environment) Application date: July 4, 2019 Sunset date: January 4, 2021 Exemption - extended latest application and sunset date for the research, development and production of medicinal products or medical devices in view of their use for the diagnosis, treatment or prevention of the coronavirus disease (COVID-19)		SVHC Candidate list - Equivalent level of concern having probable serious effects to the environment (Article 57f - environment)
Sodium chloride	7647-14-5	- ,	-	-
Sodium phosphate dibasic	7558-79-4	-	-	-
Potassium chloride	7447-40-7	-	-	-

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

# **REACH links**

https://echa.europa.eu/authorisation-list https://echa.europa.eu/candidate-list-table

# Seveso III Directive (2012/18/EC)

ſ	Component	CAS No	Seveso III Directive (2012/18/EC) -	Seveso III Directive (2012/18/EC) -	
	-		Qualifying Quantities for Major Accident	Qualifying Quantities for Safety Repo	
I			Notification	Requirements	

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Water	7732-18-5	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl),	9002-93-1	Not applicable	Not applicable
.alpha[4-(1,1,3,3-tetrameth			
ylbutyl)phenyl]omegahydr			
oxy-			
Sodium chloride	7647-14-5	Not applicable	Not applicable
Sodium phosphate dibasic	7558-79-4	Not applicable	Not applicable
Potassium chloride	7447-40-7	Not applicable	Not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

# **National Regulations**

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

**WGK Classification** 

Water endangering class = 1 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Poly(oxy-1,2-ethanediyl),	WGK2	
.alpha[4-(1,1,3,3-tetramethylbut		
yl)phenyl]omegahydroxy-		
Sodium chloride	WGK1	
Sodium phosphate dibasic	WGK1	
Potassium chloride	WGK1	

Component	France - INRS (Tables of occupational diseases)
Sodium chloride	Tableaux des maladies professionnelles (TMP) - RG 78
Potassium chloride	Tableaux des maladies professionnelles (TMP) - RG 67

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Poly(oxy-1,2-ethanediyl), .alpha[4-(1,1,3,3-tetramethylbutyl)phenyl]- .omegahydroxy- 9002-93-1 ( 1 )	Prohibited and Restricted Substances		
Sodium chloride 7647-14-5 ( 0.82 )	Prohibited and Restricted Substances		

# 15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

# **SECTION 16: OTHER INFORMATION**

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H302 - Harmful if swallowed

H318 - Causes serious eve damage

H411 - Toxic to aquatic life with long lasting effects

### Legend

**CAS** - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic

Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances Substances List

**ENCS** - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association** 

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate **BCF** - Bioconcentration factor VOC - (Volatile Organic Compound)

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data **Health Hazards** Calculation method **Environmental hazards** Calculation method

### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Health, Safety and Environmental Department **Prepared By** 

**Revision Date** 17-Mar-2024

New emergency telephone response service provider. **Revision Summary** 

# This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**