

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

Creation Date 18-May-2018 Revision Date 20-Feb-2024 **Revision Number** 3

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

1.1. Product identifier

Product Description: Sponge Nickel, A-7063, promoted with 1% Molybdenum

Cat No.: 44869

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

Laboratory chemicals. Recommended Use 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

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

Self-heating substances/mixtures Category 1 (H251) Pyrophoric solids Category 1 (H250)

Health hazards

Skin Sensitization Category 1 (H317) Carcinogenicity Category 2 (H351) Specific target organ toxicity - (repeated exposure) Category 1 (H372)

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Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

2.2. Label elements

Contains Nickel/Aluminium alloy



Signal Word

Danger

Hazard Statements

H251 - Self-heating: may catch fire

H250 - Catches fire spontaneously if exposed to air

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary Statements

P201 - Obtain special instructions before use

P222 - Do not allow contact with air

P235 + P410 - Keep cool. Protect from sunlight

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P302 + P335 + P334 - IF ON SKIN: Brush off loose particles from skin. Immerse in cool water or wrap in wet bandages

2.3. Other hazards

Do not allow evaporation to dryness; Hydrogen gas

Toxicity to Soil Dwelling Organisms

This product does not contain any known or suspected endocrine disruptors

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
Nickel	7440-02-0	EEC No. 231-111-4	92.4	Skin Sens. 1 (H317) Carc. 2 (H351) STOT RE 1 (H372)
Aluminum	7429-90-5	EEC No. 231-072-3	6.4	-
Molybdenum	7439-98-7	EEC No. 231-107-2	1	-
Iron	7439-89-6	EEC No. 231-096-4	0.1	-
Chromium	7440-47-3	EEC No. 231-157-5	0.1	-

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Note

Water

Slurry

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

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. Get medical attention if

symptoms occur.

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

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest

pain, muscle pain or flushing

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

approved class D extinguishers. Do not use water or foam.

Extinguishing media which must not be used for safety reasons

Water may be ineffective. Water.

5.2. Special hazards arising from the substance or mixture

Pyrophoric: Spontaneously flammable in air.

Hazardous Combustion Products

Nickel oxides, Fumes of aluminum or aluminum oxide, Molybdenum oxides, Iron oxides, Chromium oxide.

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. Avoid dust formation. No special precautions required. Do not dry up the product.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system. Collect spillage. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Pick up and transfer to properly labelled containers.

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. Avoid dust formation.

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 in a dry place. Keep away from acids. Store under an inert atmosphere. Protect from sunlight and store in well-ventilated place. Keep wetted with water. Keep away from open flames, hot surfaces and sources of ignition.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany) Class 4.2

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE** - 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

Component	The United Kingdom	European Union	Ireland
			i ireiand

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Nickel	STEL: 1.5 mg/m³ 15 min TWA: 0.5 mg/m³ 8 hr Skin		TWA: 0.5 mg/m³ 8 hr. STEL: 1.5 mg/m³ 15 min
Aluminum	STEL: 30 mg/m ³ 15 min STEL: 12 mg/m ³ 15 min TWA: 10 mg/m ³ 8 hr TWA: 4 mg/m ³ 8 hr		TWA: 1 mg/m³ 8 hr. respirable fraction STEL: 3 mg/m³ 15 min
Molybdenum	STEL: 20 mg/m ³ 15 min TWA: 10 mg/m ³ 8 hr		
Chromium	STEL: 1.5 mg/m ³ 15 min TWA: 0.5 mg/m ³ 8 hr	TWA: 2 mg/m³ (8hr)	TWA: 2 mg/m ³ 8 hr. STEL: 6 mg/m ³ 15 min

Biological limit values

List source(s):

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)
Nickel 7440-02-0 (92.4)			DNEL = 0.035mg/cm2	

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Nickel 7440-02-0 (92.4)	DNEL = 11.9mg/m ³		DNEL = 0.05mg/m ³	$DNEL = 0.05 mg/m^3$
Molybdenum 7439-98-7 (1)				DNEL = 11.7mg/m ³
Iron 7439-89-6 (0.1)			DNEL = 3mg/m ³	
Chromium 7440-47-3 (0.1)			DNEL = 0.5mg/m ³	

Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
Nickel	PNEC = $7.1\mu g/L$	PNEC = 109mg/kg		PNEC = 0.33mg/L	PNEC = 29.9 mg/kg
7440-02-0 (92.4)		sediment dw			soil dw
Aluminum				PNEC = 20mg/L	
7429-90-5 (6.4)				_	
Molybdenum	PNEC = 12.7mg/L	PNEC =		PNEC = 21.7mg/L	PNEC = 9.9mg/kg
7439-98-7 (1)		22600mg/kg			soil dw
		sediment dw			
Chromium	PNEC = 6.5µg/L	PNEC =			PNEC = 21.1mg/kg
7440-47-3 (0.1)		205.7mg/kg			soil dw
, ,		sediment dw			

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Nickel	PNEC = 8.6µg/L	PNEC = 109mg/kg		PNEC = 0.12mg/kg	
7440-02-0 (92.4)		sediment dw		food	
Molybdenum	PNEC = 2.28mg/L	PNEC = 2368mg/kg			
7439-98-7 (1)		sediment dw			

8.2. Exposure controls

Engineering Measures

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None under normal use conditions.

Personal protective equipment

Wear safety glasses with side shields (or goggles) (European standard - EN 166) **Eye Protection**

Hand Protection No special protective equipment required

Breakthrough time Glove thickness Glove comments Glove material **EU** standard See manufacturers **FN 374** Disposable gloves (minimum requirement) recommendations

Skin and body protection Long sleeved clothing.

Respiratory Protection No special protective equipment required.

Large scale/emergency use In case of insufficient ventilation, wear suitable respiratory equipment

Recommended Filter type: Particulates filter conforming to EN 143

No personal respiratory protective equipment normally required Small scale/Laboratory use

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water

system. Local authorities should be advised if significant spillages cannot be contained.

Solid

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Solid Suspension **Physical State**

Appearance

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) Not applicable Flammability (solid,gas) No information available

No data available

Explosion Limits

No information available Flash Point Method - No information available

Autoignition Temperature 400 °C

No data available **Decomposition Temperature**

pН No information available

Solid **Viscosity** Not applicable

Water Solubility Insoluble in water Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor Pressure No data available **Density / Specific Gravity** No data available No data available **Bulk Density**

Not applicable Solid **Vapor Density**

Particle characteristics No data available

9.2. Other information

Not applicable - Solid **Evaporation Rate**

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Yes Spontaneously flammable in air

10.2. Chemical stability

Air sensitive.

10.3. Possibility of hazardous reactions

Hazardous Polymerization No information available.

Hazardous Reactions None under normal processing. Pyrophoric: Spontaneously flammable in air.

10.4. Conditions to avoid

Incompatible products. Excess heat.

10.5. Incompatible materials

Acids. Strong bases. Oxidizing agent.

10.6. Hazardous decomposition products

Nickel oxides. Fumes of aluminum or aluminum oxide. Molybdenum oxides. Iron oxides.

Chromium oxide.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

Oral Based on available data, the classification criteria are not met

DermalNo data availableInhalationNo data available

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nickel	LD50 > 9000 mg/kg (Rat)	-	LC50 > 10.2 mg/L (Rat) 1 h
Aluminum	-	-	LC50 > 0.888 mg/L (Rat) 4 h
Molybdenum	-	LD50 > 2000 mg/kg (Rat)	LC50 > 5.84 mg/L (Rat) 4 h
Iron	7500 mg/kg (Rat)	-	-

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory No data available Skin Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; Category 2

The table below indicates whether each agency has listed any ingredient as a carcinogen

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Component	EU	UK	Germany	IARC
Nickel			Cat. 1	Group 2B

No data available (g) reproductive toxicity;

(h) STOT-single exposure: No data available

(i) STOT-repeated exposure; Category 1

Route of exposure Inhalation **Target Organs** Lungs.

Not applicable (j) aspiration hazard;

Solid

delayed

Symptoms / effects, both acute and Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

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11.2. Information on other hazards

Assess endocrine disrupting properties for human health. This product does not contain any **Endocrine Disrupting Properties**

known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects May cause long-term adverse effects in the environment. Do not allow material to

contaminate ground water system.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Nickel	LC50: > 100 mg/L, 96h (Brachydanio rerio) LC50: = 1.3 mg/L, 96h semi-static (Cyprinus carpio) LC50: = 10.4 mg/L, 96h static (Cyprinus carpio)	EC50 = 510 μg/L 96h	EC50 = 0.1 mg/L 72h EC50 = 0.18 mg/L 72h

12.2. Persistence and degradability Product contains heavy metals. Discharge into the environment must be avoided. Special

pre-treatment is necessary

Persistence Insoluble in water, May persist. Not relevant for inorganic substances. Degradability

Degradation in sewage

treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants.

12.3. Bioaccumulative potential May have some potential to bioaccumulate; Product has a high potential to bioconcentrate

Component	log Pow	Bioconcentration factor (BCF)
Chromium		1.03 - 1.22

12.4. Mobility in soil Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water

solubility.

No data available for assessment. 12.5. Results of PBT and vPvB

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assessment

12.6. Endocrine disrupting

properties

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects
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

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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. Empty containers

retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and

empty container away from heat and sources of ignition.

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

application specific.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the

application for which the product was used. Do not empty into drains. Can be landfilled or incinerated, when in compliance with local regulations. Do not let this chemical enter the

environment.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN1378

14.2. UN proper shipping name METAL CATALYST, WETTED

14.3. Transport hazard class(es) 4.2 14.4. Packing group II

4.2

<u>ADR</u>

14.1. UN number UN1378

14.2. UN proper shipping name METAL CATALYST, WETTED

14.3. Transport hazard class(es) 4.2 14.4. Packing group II

IATA

14.1. UN number UN1378

14.2. UN proper shipping name METAL CATALYST, WETTED

14.3. Transport hazard class(es) 4.2 14.4. Packing group II

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required.

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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

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
Nickel	7440-02-0	231-111-4	-	-	X	X	KE-25818	X	-
Aluminum	7429-90-5	231-072-3	-	-	X	Х	KE-00881	X	-
Molybdenum	7439-98-7	231-107-2	-	-	Х	Χ	KE-25427	Х	-
Iron	7439-89-6	231-096-4	-	-	X	Х	KE-21059	Х	-
Chromium	7440-47-3	231-157-5	-	-	Х	Х	KE-05970	Х	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Nickel	7440-02-0	X	ACTIVE	X	-	X	Х	X
Aluminum	7429-90-5	X	ACTIVE	Х	-	X	Х	Х
Molybdenum	7439-98-7	Х	ACTIVE	Х	-	X	Х	Х
Iron	7439-89-6	X	ACTIVE	Х	-	X	Х	Х
Chromium	7440-47-3	Х	ACTIVE	Х	-	Χ	Х	Х

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) -	REACH (1907/2006) - Annex XVII - Restrictions	REACH Regulation (EC 1907/2006) article 59 -
		Subject to Authorization		Candidate List of
		Cubject to Authorization	Substances	Substances of Very High
				Concern (SVHC)
Nickel	7440-02-0	-	Use restricted. See item	-
			27.	
			(see link for restriction	
			details)	
			Use restricted. See item	
			75.	
			(see link for restriction	
			details)	
Aluminum	7429-90-5	-	Use restricted. See item	-
			75.	
			(see link for restriction	
			details)	
Molybdenum	7439-98-7	-	-	-
Iron	7439-89-6	-	-	-
Chromium	7440-47-3	-	Use restricted. See item	-
			75.	
			(see link for restriction	
			details)	

REACH links

https://echa.europa.eu/substances-restricted-under-reach

Seveso III Directive (2012/18/EC)

	Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
	Nickel	7440-02-0	Not applicable	Not applicable
-	Aluminum	7429-90-5	Not applicable	Not applicable

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Molybdenum	7439-98-7	Not applicable	Not applicable
Iron	7439-89-6	Not applicable	Not applicable
Chromium	7440-47-3	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.

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

National Regulations

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

WGK Classification

Water endangering class = 2 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Nickel	WGK 2	Class II: 0.5 mg/m³ (Massenkonzentration)
		Krebserzeugende Stoffe - Class II : 0.5 mg/m³ (Massenkonzentration)
Aluminum	nwg	
Molybdenum	nwg	
Iron	nwg	
Chromium	nwg	Class III: 1 mg/m³ (Massenkonzentration)

Component	France - INRS (Tables of occupational diseases)	
Aluminum	Tableaux des maladies professionnelles (TMP) - RG 32	
	Tableaux des maladies professionnelles (TMP) - RG 16,RG 16bis	
Iron	Tableaux des maladies professionnelles (TMP) - RG 44,RG 44bis,RG 94	
Chromium	Tableaux des maladies professionnelles (TMP) - RG 10	

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
Nickel	Prohibited and Restricted		
7440-02-0 (92.4)	Substances		
Chromium	Prohibited and Restricted	_	
7440-47-3 (0.1)	Substances		

15.2. Chemical safety assessment

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

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer

H372 - Causes damage to organs through prolonged or repeated exposure

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H228 - Flammable solid H400 - Very toxic to aquatic life

Legend

CAS - Chemical Abstracts Service

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

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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

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

VOC - (Volatile Organic Compound)

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 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.

Prepared By Health, Safety and Environmental Department

Creation Date 18-May-2018 **Revision Date** 20-Feb-2024

Revision Summary New emergency telephone response service provider.

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