

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

Creation Date 21-Mar-2011 Revision Date 19-Oct-2023 Revision Number 13

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

1.1. Product identifier

Product Description: <u>Acetic anhydride</u>

Cat No.: A/0440/PB08, A/0440/PB17

Synonyms Acetyl oxide, Acetic acid anhydride, Acetic oxide, Ethanoic anhydride

 Index No
 607-008-00-9

 CAS No
 108-24-7

 EC No
 203-564-8

 Molecular Formula
 C4 H6 O3

REACH registration number 01-2119486470-36

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

UK entity/business name

Fisher Scientific UK

Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom

EU entity/business name Thermo Fisher Scientific

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

Chemtrec US: (800) 424-9300 Chemtrec EU: 001-703-527-3887

Tel: 01509 231166

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

Flammable liquids Category 3 (H226)

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Health hazards

Acute oral toxicity
Acute Inhalation Toxicity - Vapors
Skin Corrosion/Irritation
Serious Eye Damage/Eye Irritation

Category 4 (H302) Category 2 (H330) Category 1 B (H314) Category 1 (H318)

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

Danger

Hazard Statements

H226 - Flammable liquid and vapor

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H330 - Fatal if inhaled

EUH071 - Corrosive to the respiratory tract

Precautionary Statements

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

P280 - Wear eye protection/ face protection

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

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

P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB) Lachrymator (substance which increases the flow of tears)

Reacts with water and forms acetic acid

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - According to
·				GB-CLP Regulations UK SI 2019/720 and
				UK SI 2020/1567

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Acetic anhydride	108-24-7	EEC No. 203-564-8	>99	Flam. Liq. 3 (H226)
				Acute Tox. 4 (H302)
				Acute Tox. 2 (H330)
				Skin Corr. 1B (H314)
				Eye Dam. 1 (H318)
				(EUH071)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
	1/		
Acetic anhydride	Eye Dam. 1 (H318) ::	-	-
	5%<=C<25%		
	Eye Irrit. 2 (H319) :: 1%<=C<5%		
	Skin Corr. 1B (H314) :: C>=25%		
	Skin Irrit. 2 (H315) ::		
	5%<=C<25%		
	STOT SE 3 (H335) :: C>=5%		

REACH registration number	01-2119486470-36
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Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

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

Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth

> method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Immediate medical attention is required.

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

Causes burns by all exposure routes. Difficulty in breathing. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

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

CO₂, dry chemical, dry sand, alcohol-resistant foam. Water mist may be used to cool closed containers.

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Extinguishing media which must not be used for safety reasons

Water.

5.2. Special hazards arising from the substance or mixture

Flammable. Corrosive material. Water reactive. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO2).

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

Use personal protective equipment as required. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin, eyes and inhalation of vapors.

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

Remove all sources of ignition. Do not expose spill to water. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Use spark-proof tools and explosion-proof equipment.

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

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Keep away from open flames, hot surfaces and sources of ignition. Use spark-proof tools and explosion-proof equipment. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Do not allow contact with water.

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 containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Keep away from water or moist air. Flammables area.

Technical Rules for Hazardous Substances (TRGS) 510 Class 3

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Storage Class (LGK) (Germany)

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **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
Acetic anhydride	STEL: 2 ppm 15 min		TWA: 1 ppm 8 hr.
·	STEL: 10 mg/m ³ 15 min		TWA: 2.5 mg/m ³ 8 hr.
	TWA: 0.5 ppm 8 hr		STEL: 3 ppm 15 min
	TWA: 2.5 mg/m ³ 8 hr		STEL: 10 mg/m ³ 15 min

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 (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)	
Acetic anhydride 108-24-7 (>99)	DNEL = 12.6mg/m ³		DNEL = 4.2mg/m ³	DNEL = 4.2mg/m ³	

Predicted No Effect Concentration (PNEC)

See values below.

Γ	Component	Fresh water	Fresh water	Water Intermittent	Water Intermittent Microorganisms in	
			sediment		sewage treatment	
Г	Acetic anhydride	PNEC = 3.058mg/L	PNEC =	PNEC = 30.58mg/L	PNEC = 115mg/L	PNEC = 0.47 mg/kg
	108-24-7 (>99)		11.36mg/kg			soil dw
			sediment dw			

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Acetic anhydride	PNEC =	PNEC =			
108-24-7 (>99)	0.3058mg/L	1.136mg/kg			
		sediment dw			

8.2. Exposure controls

Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment.

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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
Nitrile rubber	< 240 minutes	0.38 mm	EN 374	Permeation rate 1779 µg/cm2/min
			Level 5	As tested under EN374-3 Determination of
				Resistance to Permeation by Chemicals
Butyl rubber	> 480 minutes	0.35 mm		,
Neoprene	> 480 minutes	0.45 mm		
Viton (R)	> 480 minutes	0.7 mm		

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

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: Organic gases and vapours filter Type A Brown conforming to

EN14387

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:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN

141

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

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 pungent

Odor Threshold
Melting Point/Range
Melting Point
No data available
-73.1 °C / -99.6 °F
No data available
Boiling Point/Range
140 °C / 284 °F

Boiling Point/Range140 °C / 284 °F@ 760 mmHgFlammability (liquid)FlammableOn basis of test dataFlammability (solid,gas)Not applicableLiquid

Flammability (solid,gas) Not applicable Lie Explosion Limits Lower 2 Vol%

Lower 2 Vol% Upper 12 Vol% 49 °C / 120.2 °F

Flash Point

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Method - CC (closed cup)

Autoignition Temperature 316 °C / 600.8 °F Decomposition Temperature No data available

pH 3

Viscosity 0.91 mPa.s at 20 °C

Water Solubility hydrolyses

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component log Pow Acetic anhydride -0.27

Vapor Pressure 5 mbar @ 20 °C

Density / Specific Gravity 1.087

Bulk DensityNot applicableLiquidVapor Density3.5(Air = 1.0)

Particle characteristics Not applicable (liquid)

9.2. Other information

Molecular FormulaC4 H6 O3Molecular Weight102.09

Explosive Properties explosive air/vapour mixtures possible

Evaporation Rate 0.46 - (Butyl Acetate = 1.0)

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity Yes

10.2. Chemical stability

Moisture sensitive.

10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions No information available.

10.4. Conditions to avoid

Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

Exposure to moist air or water.

10.5. Incompatible materials

Strong acids. Water. Strong reducing agents. Alcohols. Bases. Oxidizing agent.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

Oral Category 4

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

Inhalation Category 2

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Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetic anhydride	LD50 = 630 mg/kg (Rat)	LD50 = 4000 mg/kg (Rabbit)	LC100: 1.67 mg/L/6h (Rat)
	Equiv. OECD 410		Equiv. OECD 412
	•		LC50: 400 ppm/6h (Rat)

(b) skin corrosion/irritation; Category 1 B

Based on available literature and data from closely analogous substances using

structure/activity relationships

(c) serious eye damage/irritation; Category 1

Based on available literature and data from closely analogous substances using

structure/activity relationships

(d) respiratory or skin sensitization;

Respiratory Based on available data, the classification criteria are not met Skin

Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

Not mutagenic in AMES Test

(f) carcinogenicity; Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

Based on available data, the classification criteria are not met (h) STOT-single exposure; OECD Test No. 412

Study/Evidence (Classification

basis)

Test species / Sex / Route of

exposure

Rat / Inhalation (4h)

LOAEL = 300 - 2000 ppm **Effective dose**

Results / Target organs Eyes.

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

OECD Test No. 413 Test method

Test species / Duration Rat / 90 days

Study result NOAEL = 0.2 - 1 ppm

Inhalation Route of exposure None known. **Target Organs**

Based on available data, the classification criteria are not met (i) aspiration hazard;

delayed

Symptoms / effects, both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms

of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

11.2. Information on other hazards

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

known or suspected endocrine disruptors.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Reacts with water so no ecotoxicity data for the substance is available. Do not empty into

drains. Large amounts will affect pH and harm aquatic organisms.

12.2. Persistence and degradability Readily biodegradable

Persistence

Persistence is unlikely, based on information available.

Degradability

Reacts with water.

Degradation in sewage treatment plant

Decomposes in contact with water. Neutralization is normally necessary before waste water

is discharged into water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Acetic anhydride	-0.27	3.16

Decomposes in contact with water . 12.4. Mobility in soil

12.5. Results of PBT and vPvB

assessment

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent

and very bioaccumulative (vPvB).

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

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. Do not flush to sewer. Large amounts will affect pH

and harm aquatic organisms.

SECTION 14: TRANSPORT INFORMATION

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IMDG/IMO

14.1. UN number UN1715

14.2. UN proper shipping name ACETIC ANHYDRIDE

14.3. Transport hazard class(es)8Subsidiary Hazard Class314.4. Packing groupII

ADR

14.1. UN number UN1715

14.2. UN proper shipping name ACETIC ANHYDRIDE

14.3. Transport hazard class(es)8Subsidiary Hazard Class314.4. Packing groupII

<u>IATA</u>

14.1. UN number UN1715

14.2. UN proper shipping name ACETIC ANHYDRIDE

14.3. Transport hazard class(es)8Subsidiary Hazard Class314.4. Packing groupII

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

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
Acetic anhydride	108-24-7	203-564-8	ı	-	X	X	KE-00017	Χ	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Acetic anhydride	108-24-7	X	ACTIVE	X	ı	X	Х	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		REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	on Certain Dangerous	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High
				Concern (SVHC)
Acetic anhydride	108-24-7	-	Use restricted. See item	-

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	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) -	Seveso III Directive (2012/18/EC) -	
		Qualifying Quantities for Major Accident	Qualifying Quantities for Safety Report	
		Notification	Requirements	
Acetic anhydride	108-24-7	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

See table for values

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class	
Acetic anhydride	WGK1	Class I: 20 mg/m3 (Massenkonzentration)	

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
Acetic anhydride 108-24-7 (>99)		Group I	

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

SECTION 16: OTHER INFORMATION

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

H226 - Flammable liquid and vapor

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

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H330 - Fatal if inhaled

EUH071 - Corrosive to the respiratory tract

Legend

CAS - Chemical Abstracts Service

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

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

BCF - Bioconcentration factor

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

MARPOL - International Convention for the Prevention of Pollution from

Shins ATE - Acute Toxicity Estimate

Key literature references and sources for data

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

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

Training Advice

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

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

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

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Creation Date 21-Mar-2011 **Revision Date** 19-Oct-2023

Revision Summary SDS sections updated, 1, 3, 8, 11, 15.

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