

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

Creation Date 28-Apr-2011 Revision Date 18-Oct-2023 Revision Number 8

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

1.1. Product identifier

Product Description: <u>iso-Hexane</u>

Cat No.: H/0411/DH25, H/0411/PB15, H/0411/27, H/0411/25, H/0411/21,

H/0411/21RSS, H/0411/24RSS, H/0411/25RSS, H/0411/34RSS, H/0411/27RSS

 CAS No
 73513-42-5

 EC No
 931-254-9

 Molecular Formula
 C6 H14

REACH registration number 01-2119484651-34

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

Recommended Use Laboratory chemicals.

Sector of use SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Product category PC21 - Laboratory chemicals

Process categories PROC15 - Use as a laboratory reagent

Environmental release category ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)

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

Tel: 01509 231166

Chemtrec US: (800) 424-9300 Chemtrec EU: 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

iso-Hexane Revision Date 18-Oct-2023

Flammable liquids Category 2 (H225)

Health hazards

Aspiration Toxicity
Skin Corrosion/Irritation
Specific target organ toxicity - (single exposure)

Category 1 (H304)
Category 2 (H315)
Category 3 (H336)

Environmental hazards

Chronic aquatic toxicity Category 2 (H411)

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

Hazard Statements

H225 - Highly flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H336 - May cause drowsiness or dizziness

H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331 - Do NOT induce vomiting

P280 - Wear protective gloves/protective clothing

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

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

2.3. Other hazards

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

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 |

iso-Hexane Revision Date 18-Oct-2023

| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | 931-254-9 | > 95 | Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Chronic 2 (H411) |
|---|------------|-----------|------|---|
| Hexane, mixed isomers | 73513-42-5 | | - | Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Chronic 2 (H411) |

Note REACH UVCB Hydrocarbons

C6, isoalkanes, < 5% n-Hexane

Contains CAS 73513-42-5 (Iso-Hexane)

REACH registration number 01-2119484651-34

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. Do NOT induce vomiting. Call

a physician or poison control center immediately. If vomiting occurs naturally, have victim

lean forward.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms

occur. Risk of serious damage to the lungs (by aspiration).

Self-Protection of the First Aider Use personal protective equipment as required.

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

Difficulty in breathing. . Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

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

Notes to Physician Treat symptomatically. Symptoms may be delayed.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

iso-Hexane Revision Date 18-Oct-2023

Suitable Extinguishing Media

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

Water may be ineffective. Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Vapors may form explosive mixtures with air. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Extremely flammable.

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. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage.

6.3. Methods and material for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges.

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. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks and flame. Flammables area. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Keep container tightly

ECHLIDAAA

iso-Hexane Revision Date 18-Oct-2023

Class 3

closed in a dry and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 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 |
|--|---------------------------------|----------------|-------------------------------------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane | RCP Isohexanes, TWA (8 h) | | |
| (Iso-Hexane) | 250 ppm, 1000 mg/m ³ | | |
| Hexane, mixed isomers | | | TWA: 500 ppm 8 hr. except |
| | | | n-Hexane |
| | | | TWA: 1800 mg/m ³ 8 hr. |
| | | | except n-Hexane |
| | | | STEL: 1000 ppm 15 min |
| | | | STEL: 3600 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 | Acute effects | Chronic effects local | Chronic effects |
|--------------------------------|--------------------------------|------------------------|-------------------------------|-----------------------|
| | (Inhalation) | systemic (Inhalation) | (Inhalation) | systemic (Inhalation) |
| Hydrocarbons, C6, isoalkanes < | $DNEL = 1066.67 \text{mg/m}^3$ | $DNEL = 1286.4 mg/m^3$ | DNEL = 837.5mg/m ³ | |
| 5% n-hexane (Iso-Hexane) | _ | _ | _ | |
| 64742-49-0 (> 95) | | | | |

Predicted No Effect Concentration (PNEC)

Not applicable. Substance is complex UVCB.

8.2. Exposure controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas. Use spark-proof tools and explosion-proof equipment.

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

iso-Hexane Revision Date 18-Oct-2023

control hazardous materials at source

Personal protective equipment

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

Hand Protection Protective gloves

| Γ | Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|---|-----------------|-------------------|-----------------|-------------|--|
| | Nitrile rubber | > 480 minutes | 0.38 mm | Level 6 | As tested under EN374-3 Determination of |
| | Viton (R) | > 480 minutes | 0.35 mm | EN 374 | Resistance to Permeation by Chemicals |
| | Neoprene gloves | < 45 minutes | 0.45 mm | | · |

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 No protective equipment is needed under normal use conditions.

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: low boiling organic solvent Type AX Brown conforming to

EN371

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

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

system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Liquid

Explosion Limits

Appearance Colorless
Odor Slight

Odor Threshold
Melting Point/Range
Softening Point
No data available
-154 °C / -245.2 °F
No data available

Boiling Point/Range 48 - 70 °C / 118.4 - 158 °F

Flammability (liquid) Highly flammable On basis of test data

Flammability (solid,gas) Not applicable Liquid

Lower 1.0 vol% Upper 7.4 vol%

Flash Point -33 °C / -27.4 °F Method - No information available

Autoignition Temperature

Decomposition Temperature
pH

265 - °C / 509 - °F
No data available
No information available

Viscosity No data available

Water Solubility Insoluble

iso-Hexane Revision Date 18-Oct-2023

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Vapor Pressure 23 hPa @ 20 °C

Density / Specific Gravity 0.660

Bulk DensityNot applicableLiquidVapor Density> 1(Air = 1.0)

Particle characteristics Not applicable (liquid)

9.2. Other information

Molecular Formula C6 H14 Molecular Weight 86.18

Explosive Properties Vapors may form explosive mixtures with air

Evaporation Rate 13 (Butyl acetate = 1.0)

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 Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidizing agents.

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;

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

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation | |
|-----------------------------------|-------------------------|----------------------------|----------------------------|--|
| Hydrocarbons, C6, isoalkanes < 5% | LD50 > 5000 mg/kg (Rat) | LD50 > 3160 mg/kg (Rabbit) | LC50 = 73680 ppm (Rat) 4 h | |
| n-hexane (Iso-Hexane) | | | | |

(b) skin corrosion/irritation; Category 2

iso-Hexane Revision Date 18-Oct-2023

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

Respiratory Skin

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

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

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

> The table below indicates whether each agency has listed any ingredient as a carcinogen The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen. This note

applies only to certain complex oil derived substances in Annex I

| Component | EU | UK | Germany | IARC |
|--------------------------------|--------------|----|---------|------|
| Hydrocarbons, C6, isoalkanes < | Carc Cat. 1B | | | |
| 5% n-hexane (Iso-Hexane) | | | | |

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

Category 3 (h) STOT-single exposure;

Results / Target organs Central nervous system (CNS).

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

None known. **Target Organs**

(j) aspiration hazard; Category 1

Other Adverse Effects See actual entry in RTECS for complete information

delayed

Symptoms / effects,both acute and Inhalation of high vapor concentrations may cause symptoms like 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.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment. The product contains following substances which are hazardous for the

environment.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|-----------------------------------|---|------------|------------------|
| Hydrocarbons, C6, isoalkanes < 5% | LC50: = 8.41 mg/L, 96h | | |
| n-hexane (Iso-Hexane) | semi-static, closed (Oncorhynchus mykiss) | | |

iso-Hexane Revision Date 18-Oct-2023

12.2. Persistence and degradability

Persistence

Persistence is unlikely, based on information available.

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 Bioaccumulation is unlikely

The product contains volatile organic compounds (VOC) which will evaporate easily from all 12.4. Mobility in soil

surfaces Will likely be mobile in the environment due to its volatility. Disperses rapidly in

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. 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.

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

application specific.

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

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

empty into drains.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN1208 14.2. UN proper shipping name **HEXANES**

14.3. Transport hazard class(es)

3

14.4. Packing group

П

ADR

iso-Hexane Revision Date 18-Oct-2023

14.1. UN number UN1208

14.2. UN proper shipping nameHEXANES14.3. Transport hazard class(es)314.4. Packing groupII

<u>IATA</u>

14.1. UN number UN1208 14.2. UN proper shipping name HEXANES

14.3. Transport hazard class(es) 3 14.4. Packing group II

14.5. Environmental hazards Dangerous for the environment

Product is a marine pollutant according to the criteria set by IMDG/IMO

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 |
|--------------------------------|------------|-----------|-----------|-----|-------|------|----------|------|------|
| Hydrocarbons, C6, isoalkanes < | 64742-49-0 | 265-151-9 | - | - | X | X | KE-25623 | | - |
| 5% n-hexane (Iso-Hexane) | | | | | | | | | |
| Hexane, mixed isomers | 73513-42-5 | - | 438-390-3 | - | X | Х | - | Χ | X |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---|------------|------|---|-----|------|------|-------|-------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | Х | ACTIVE | Х | - | Х | Х | Х |
| Hexane, mixed isomers | 73513-42-5 | - | <u>=</u> | - | - | - | 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) - Annex XIV - Substances Subject to Authorization | | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|------------|---|--|---|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | - | Use restricted. See item 28. (see link for restriction details) Use restricted. See item 29. (see link for restriction details) Use restricted. See item 75. | - |

iso-Hexane Revision Date 18-Oct-2023

| | | | (see link for restriction details) | |
|-----------------------|------------|---|------------------------------------|---|
| Hexane, mixed isomers | 73513-42-5 | = | = | - |

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 |
|---|------------|---|--|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | Not applicable | Not applicable |
| Hexane, mixed isomers | 73513-42-5 | 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 |
|--------------------------------|---------------------------------------|-------------------------|
| Hydrocarbons, C6, isoalkanes < | WGK2 | |
| 5% n-hexane (Iso-Hexane) | | |

| Component | France - INRS (Tables of occupational diseases) | |
|---|--|--|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | Tableaux des maladies professionnelles (TMP) - RG 84 | |
| Hexane, mixed isomers | Tableaux des maladies professionnelles (TMP) - RG 84 | |

| 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 |
|-----------------------|--|---|--|
| Hexane, mixed isomers | Prohibited and Restricted | | |
| 73513-42-5 (-) | Substances | | |

15.2. Chemical safety assessment

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

Revision Date 18-Oct-2023 iso-Hexane

SECTION 16: OTHER INFORMATION

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

H225 - Highly flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H336 - May cause drowsiness or dizziness

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

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

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 Ships

ATE - Acute Toxicity Estimate

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

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. Chemical incident response training.

Creation Date 28-Apr-2011 **Revision Date** 18-Oct-2023 **Revision Summary** Not applicable.

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

FSUH0411

Page 12 / 13

Revision Date 18-Oct-2023

End of Safety Data Sheet