

Creation Date Oct 2013 Revision Date Oct 2018 Revision Number 2

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

1.1. Product identification

Product Description: <u>n-Amyl acetate</u>

Product Grade: SQ

Cat No. : Q21505,Q21507

Synonyms 1-Pentyl acetate, Iso Amyl Acetate

 CAS-No
 628-63-7

 EC-No.
 211-047-3

 Molecular Formula
 C7 H14 O2

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 Thermo Fisher Scientific India Pvt. Ltd

403-404, B-wing, Delphi, Hiranandani Business Park,

Powai, Mumbai 400076, INDIA.

E-mail address <u>laboratorysolutions@thermofisher.com</u>

1.4. Emergency telephone number

India Toll Free: 18 00 22 22 30 Chemtrec US: (800) 424-9300 Chemtrec EU: 001 (202) 483-7616

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Flammable liquids Category 3

Health hazards

Serious Eye Damage/Eye Irritation Category 2
Specific target organ toxicity - (single exposure) Category 3

Environmental hazards

Based on available data, the classification criteria are not met

2.2. Label elements

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Signal Word Warning

Hazard Statements

H226 - Flammable liquid and vapor

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

EUH066 - Repeated exposure may cause skin dryness or cracking

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

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

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

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

P312 - Call a POISON CENTER or doctor/ physician if you feel unwell

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

2.3. Other hazards

No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

| Component | CAS-No | EC-No. | Weight % | CLP Classification - Regulation (EC) No 1272/2008 |
|----------------|----------|-------------------|----------|--|
| n-Amyl acetate | 628-63-7 | EEC No. 211-047-3 | 98 | Flam. Liq. 3 (H226) Eye Irrit. 2 (H319) STOT SE 3 (H335) (EUH066) |

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.

Obtain medical attention.

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

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

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.

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

protect themselves and prevent spread of contamination.

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

None reasonably foreseeable. Breathing difficulties. . 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. Symptoms may be delayed.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Cool closed containers exposed to fire with water spray.

Extinguishing media which must not be used for safety reasons

No information available.

5.2. Special hazards arising from the substance or mixture

Flammable. Risk of ignition. 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. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

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

5.3. Advice for firefighters

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

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

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. 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

Wear personal protective equipment. Ensure adequate ventilation. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

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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 and sources of ignition.

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 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

| Component | European Union | The United Kingdom | France | Belgium | Spain |
|----------------|---------------------------------|---------------------------------|---------------------------------------|-----------------------------------|----------------------|
| n-Amyl acetate | TWA: 50 ppm 8 hr | STEL: 100 ppm 15 min | TWA / VME: 50 ppm (8 | TWA: 50 ppm 8 uren | STEL / VLA-EC: 100 |
| | TWA: 270 mg/m ³ 8 hr | STEL: 541 mg/m ³ 15 | heures). restrictive limit | TWA: 270 mg/m ³ 8 uren | ppm (15 minutos). |
| | STEL: 100 ppm 15 min | min | TWA / VME: 270 mg/m ³ | STEL: 100 ppm 15 | STEL / VLA-EC: 540 |
| | STEL: 540 mg/m ³ 15 | TWA: 50 ppm 8 hr | (8 heures). restrictive | minuten | mg/m³ (15 minutos). |
| | min | TWA: 270 mg/m ³ 8 hr | limit | STEL: 540 mg/m ³ 15 | TWA / VLA-ED: 50 ppm |
| | | _ | STEL / VLCT: 100 ppm. | minuten | (8 horas) |
| | | | restrictive limit | | TWA / VLA-ED: 270 |
| | | | STEL / VLCT: 540 | | mg/m³ (8 horas) |
| | | | mg/m ³ . restrictive limit | | · |

| Component | Italy | Germany | Portugal | The Netherlands | Finland |
|----------------|--|--|---|----------------------------|---|
| n-Amyl acetate | Italy TWA: 50 ppm 8 ore. Media Ponderata TWA: 270 mg/m³ 8 ore. Media Ponderata STEL: 100 ppm 15 minuti. Breve termine STEL: 540 mg/m³ 15 minuti. Breve termine | Germany TWA: 50 ppm (8 Stunden). AGW - exposure factor 1 TWA: 270 mg/m³ (8 Stunden). AGW - exposure factor 1 TWA: 50 ppm (8 Stunden). MAK TWA: 270 mg/m³ (8 Stunden). MAK Höhepunkt: 50 ppm | Portugal STEL: 100 ppm 15 minutos STEL: 540 mg/m³ 15 minutos TWA: 50 ppm 8 horas TWA: 270 mg/m³ 8 horas | STEL: 530 mg/m³ 15 minuten | Finland TWA: 50 ppm 8 tunteina TWA: 270 mg/m³ 8 tunteina STEL: 100 ppm 15 minuutteina STEL: 540 mg/m³ 15 minuutteina |
| | | Höhepunkt: 270 mg/m ³ | | | |

| Component | Austria | Denmark | Switzerland | Poland | Norway |
|----------------|--------------------------------|------------------------------------|--------------------------------|--------------------------------|------------------------------------|
| n-Amyl acetate | MAK-KZW: 100 ppm 15 | TWA: 50 ppm 8 timer | STEL: 50 ppm 15 | STEL: 500 mg/m ³ 15 | TWA: 50 ppm 8 timer |
| · | Minuten | TWA: 271 mg/m ³ 8 timer | Minuten | minutach | TWA: 260 mg/m ³ 8 timer |
| | MAK-KZW: 540 mg/m ³ | - | STEL: 260 mg/m ³ 15 | TWA: 250 mg/m ³ 8 | STEL: 50 ppm 15 |
| | 15 Minuten | | Minuten | godzinach | minutter. |
| | MAK-TMW: 50 ppm 8 | | TWA: 50 ppm 8 | _ | STEL: 260 mg/m ³ 15 |
| | Stunden | | Stunden | | minutter. |
| | MAK-TMW: 270 mg/m ³ | | TWA: 260 mg/m ³ 8 | | |
| | 8 Stunden | | Stunden | | |

| Component | Bulgaria | Croatia | Ireland | Cyprus | Czech Republic |
|----------------|---|---|--|---|--------------------------------|
| n-Amyl acetate | TWA: 50 ppm TWA: 270.0 mg/m³ STEL: 100 ppm STEL: 540.0 mg/m³ | TWA-GVI: 50 ppm 8 satima. TWA-GVI: 270 mg/m³ 8 satima. STEL-KGVI: 100 ppm | TWA: 50 ppm 8 hr. TWA: 270 mg/m³ 8 hr. STEL: 100 ppm 15 min STEL: 540 mg/m³ 15 min | STEL: 100 ppm STEL: 540 mg/m³ TWA: 50 ppm TWA: 270 mg/m³ | Ceiling: 540 mg/m ³ |
| | | 15 minutama. STEL- KGVI: 540 mg/m³ 15 minutama. | | | |

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| n-Amyl acetate | TWA: 50 ppm 8 tundides. TWA: 270 mg/m³ 8 tundides. STEL: 100 ppm 15 minutites. STEL: 540 mg/m³ 15 minutites. | TWA: 50 ppm 8 hr TWA: 270 mg/m³ 8 hr STEL: 100 ppm 15 min STEL: 540 mg/m³ 15 min | STEL: 150 ppm STEL: 800 mg/m³ TWA: 100 ppm TWA: 530 mg/m³ | STEL: 540 mg/m³ 15 percekben. CK TWA: 270 mg/m³ 8 órában. AK | STEL: 100 ppm STEL: 540 mg/m³ TWA: 50 ppm 8 klukkustundum. TWA: 270 mg/m³ 8 klukkustundum. TWA: 266 mg/m³ 8 klukkustundum. regulated under Pentyl acetate Ceiling: 100 ppm Ceiling: 540 mg/m³ Ceiling: 532 mg/m³ regulated under Pentylacetate |
|----------------|--|--|--|---|--|
|----------------|--|--|--|---|--|

| Component | Latvia | Lithuania | Luxembourg | Malta | Romania |
|----------------|---|---|---|---|---|
| n-Amyl acetate | STEL: 100 ppm STEL: 540 mg/m³ TWA: 50 ppm TWA: 270 mg/m³ | TWA: 50 ppm IPRD TWA: 270 mg/m³ IPRD TWA: 100 ppm IPRD TWA: 540 mg/m³ IPRD STEL: 100 ppm STEL: 540 mg/m³ STEL: 150 ppm STEL: 810 mg/m³ | TWA: 50 ppm 8 Stunden TWA: 270 mg/m³ 8 Stunden STEL: 100 ppm 15 Minuten STEL: 540 mg/m³ 15 Minuten | TWA: 50 ppm TWA: 270 mg/m³ STEL: 100 ppm 15 minuti STEL: 540 mg/m³ 15 minuti | TWA: 56 ppm 8 ore TWA: 300 mg/m³ 8 ore TWA: 50 ppm 8 ore TWA: 270 mg/m³ 8 ore STEL: 100 ppm 15 minute STEL: 540 mg/m³ 15 minute STEL: 94 ppm 15 minute STEL: 500 mg/m³ 15 minute |

| Component | Russia | Slovak Republic | Slovenia | Sweden | Turkey |
|----------------|----------------------------|---|---|--|---|
| n-Amyl acetate | MAC: 100 mg/m ³ | Ceiling: 540 mg/m³ TWA: 50 ppm TWA: 270 mg/m³ | TWA: 50 ppm 8 urah TWA: 270 mg/m³ 8 urah STEL: 100 ppm 15 minutah STEL: 540 mg/m³ 15 minutah | STV: 100 ppm 15 minuter STV: 540 mg/m³ 15 minuter LLV: 50 ppm 8 timmar. LLV: 270 mg/m³ 8 timmar. | TWA: 50 ppm 8 saat TWA: 270 mg/m³ 8 saat STEL: 100 ppm 15 dakika STEL: 540 mg/m³ 15 dakika |

Biological limit values

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

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) No information available

| | (syste | | Т |
|--|--------|----------------------|---|
| | | Oral Dermal | |
| | | Dermal Inhalation | |

Predicted No Effect Concentration No information available. **(PNEC)**

8.2. Exposure controls

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Engineering Measures

Use explosion-proof electrical/ventilating/lighting/equipment. Ensure adequate ventilation, especially in confined areas. 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

| Natural rubber 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 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: Organic gases and vapours filter Type A Brown conforming to

Small scale/Laboratory use Maintain adequate ventilation 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

Handle in accordance with good industrial hygiene and safety practice. **Hygiene Measures**

Environmental exposure controls No information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Colorless **Physical State** Liquid

Odor sweet

Odor Threshold No data available рΗ No information available **Melting Point/Range** -70.8 °C / -95.4 °F **Softening Point** No data available **Boiling Point/Range** 149 °C / 300.2 °F

@ 760 mmHg

24 °C / 75.2 °F Method - No information available Flash Point **Evaporation Rate** No data available

Flammability (solid,gas) Not applicable Liquid

Lower 1 **Explosion Limits**

Upper 7.5

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Vapor Pressure
No data available

Vapor Density No data available (Air = 1.0)

Specific Gravity / Density 0.870

Bulk Density Not applicable Liquid

Water Solubility 10 g/l (20°C)

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Autoignition Temperature 375 - °C / 707 - °F

Decomposition Temperature No data available

Viscosity No data available

Explosive PropertiesNo information available explosive air/vapour mixtures possible

Oxidizing Properties No information available

9.2. Other information

Molecular FormulaC7 H14 O2Molecular Weight130.19

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

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and

sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases.

10.6. Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Product Information

(a) acute toxicity;

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

DermalNo data availableInhalationNo data available

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------|-------------------------|-------------|-----------------|
| n-Amyl acetate | LD50 > 1600 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

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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; Category 3

(i) STOT-repeated exposure; No data available

Target Organs Central nervous system (CNS), Eyes, Respiratory system, Skin.

(j) aspiration hazard; No data available

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects, both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

delayed

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effectsThis product contains the following substance(s) which are hazardous for the environment.

| Component | Freshwater Fish | Water Flea | Freshwater Algae | Microtox |
|----------------|--|------------|------------------|----------|
| n-Amyl acetate | LC50: = 650 mg/L, 96h static (Lepomis macrochirus) | | | |

12.2. Persistence and degradability

Persistence Soluble in water, Persistence is unlikely, based on information available.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

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 No data

assessment

No data available for assessment.

12.6. Other adverse effects

Endocrine Disruptor Information
Persistent Organic Pollutant
Ozone Depletion Potential

This product does not contain any known or suspected endocrine disruptors

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.

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European Waste Catalogue (EWC)

According to the European Waste Catalogue, 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 dispose of waste into sewer. Can be incinerated, when in compliance

with local regulations.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN1104

14.2. UN proper shipping name AMYL ACETATES

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

ADR

14.1. UN number UN1104

14.2. UN proper shipping name AMYL ACETATES

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

<u>IATA</u>

14.1. UN number UN1104

14.2. UN proper shipping name AMYL ACETATES

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

14.5. Environmental hazards No hazards identified

14.6. Special precautions for user No special precautions required

14.7. Transport in bulk according to Not applicable, packaged goods

Annex II of MARPOL73/78 and the

IBC Code

SECTION 15: REGULATORY INFORMATION

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

International Inventories X = listed

| Component | EINECS | ELINCS | NLP | TSCA | DSL | NDSL | PICCS | ENCS | IECSC | AICS | KECL |
|----------------|-----------|--------|-----|------|-----|------|-------|------|-------|------|------|
| n-Amyl acetate | 211-047-3 | - | | X | Χ | - | Χ | Χ | Χ | Χ | Χ |

National Regulations

| Component | Germany - Water Classification (VwVwS) | Germany - TA-Luft Class | | |
|----------------|--|-------------------------|--|--|
| n-Amyl acetate | WGK 1 | | | |

| Component | | France - INRS (Tables of occupational diseases) |
|-----------|----------------|--|
| | n-Amyl acetate | Tableaux des maladies professionnelles (TMP) - RG 84 |

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

Take note of Dir 94/33/EC on the protection of young people at work

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

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

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SECTION 16: OTHER INFORMATION

Full Text of H-/EUH-Statements Referred to Under Section 3

H226 - Flammable liquid and vapor

EUH066 - Repeated exposure may cause skin dryness or cracking

H319 - Causes serious eve irritation

H335 - May cause respiratory irritation

Legend

CAS - Chemical Abstracts Service

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

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

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

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 List

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

NZIoC - New Zealand Inventory of Chemicals

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

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

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 Compounds

Key literature references and sources for data

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 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.

Chemical incident response training.

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

Creation Date Oct-2013 **Next Revision Date** Oct-2023

Revision Summary SDS section 1 updated and update to Format.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet