

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-Heptane</u>

Product Grade: HPLC, SQ, ExcelaR

Cat No.: Q43576, Q34117, Q32115, Q32117, Q34115, Q34107, Q3411C, Q34105

Synonyms Normal heptane.; Heptane

 CAS-No
 142-82-5

 EC-No.
 205-563-8

 Molecular Formula
 C7 H16

Reach Registration Number 01-2119457603-38

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

Recommended UseLaboratory 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 Thermo Fisher Scientific India Pvt. Ltd

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

Powai, Mumbai 400076, INDIA.

E-mail address laboratorysolutions@thermofisher.com

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 2

Health hazards

Aspiration Toxicity
Skin Corrosion/irritation
Specific target organ toxicity - (single exposure)
Category 2
Category 3

Environmental hazards

Acute aquatic toxicity

Chronic aquatic toxicity

Category 1

Category 1

2.2. Label elements



Signal Word

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

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

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

Danger

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

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

P331 - Do NOT induce vomiting

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P273 - Avoid release to the environment

2.3. Other hazards

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

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
n-Heptane	142-82-5	EEC No. 205-563-8	>95	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

Reach Registration Number 01-2119457603-38
--

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

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

Obtain medical attention.

n-Heptane Revision Date Oct-2018

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

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately. If vomiting

occurs naturally, have victim lean forward.

Inhalation Move 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. Obtain

medical attention. Risk of serious damage to the lungs.

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.

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

Breathing difficulties. 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

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam. Cool closed containers exposed to fire with water spray.

Extinguishing media which must not be used for safety reasons

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

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. Do not allow run-off from fire fighting to enter drains or water courses.

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. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharges. Wash hands before breaks and immediately after handling the product. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

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 before re-use. Wash hands before breaks and at the end of workday.

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. Flammables area.

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-Heptane	TWA: 500 ppm 8 hr	STEL: 1500 ppm 15 min	TWA / VME: 400 ppm (8	TWA: 400 ppm 8 uren	TWA / VLA-ED: 500
	TWA: 2085 mg/m ³ 8 hr	STEL: 6255 mg/m ³ 15	heures). restrictive limit	TWA: 1664 mg/m ³ 8	ppm (8 horas)
		min	TWA / VME: 1668	uren	TWA / VLA-ED: 2085
		TWA: 500 ppm 8 hr	mg/m³ (8 heures).	STEL: 500 ppm 15	mg/m³ (8 horas)
		TWA: 2085 mg/m ³ 8 hr	restrictive limit TWA /	minuten	
		_	VME: 1000 mg/m ³ (8	STEL: 2085 mg/m ³ 15	
			heures).	minuten	
			STEL / VLCT: 500 ppm.		
			restrictive limit		
			STEL / VLCT: 2085		
			mg/m ³ . restrictive limit		
			STEL / VLCT: 1500		
			mg/m³.		

Component	Italy	Germany	Portugal	The Netherlands	Finland
n-Heptane	TWA: 500 ppm 8 ore. Media Ponderata nel Tempo TWA: 2085 mg/m³ 8 ore. Media Ponderata nel Tempo	TWA: 500 ppm (8 Stunden). AGW - exposure factor 1 TWA: 2100 mg/m³ (8 Stunden). AGW - exposure factor 1 TWA: 500 ppm (8 Stunden). MAK	STEL: 500 ppm 15 minutos TWA: 500 ppm 8 horas TWA: 2085 mg/m³ 8 horas	STEL: 1600 mg/m³ 15 minuten TWA: 1200 mg/m³ 8 uren	TWA: 300 ppm 8 tunteina TWA: 1200 mg/m³ 8 tunteina STEL: 500 ppm 15 minuutteina STEL: 2100 mg/m³ 15 minuutteina

TWA: 2100 mg/m³ (8 Stunden). MAK Höhepunkt: 500 ppm Höhepunkt: 2100 mg/m³		
--	--	--

Component	Austria	Denmark	Switzerland	Poland	Norway
n-Heptane	MAK-KZW: 2000 ppm	TWA: 200 ppm 8 timer	STEL: 400 ppm 15	STEL: 2000 mg/m ³ 15	TWA: 200 ppm 8 timer
	15 Minuten	TWA: 820 mg/m ³ 8 timer	Minuten	minutach	TWA: 800 mg/m ³ 8 timer
	MAK-KZW: 8000 mg/m ³	_	STEL: 1600 mg/m ³ 15	TWA: 1200 mg/m ³ 8	TWA: 40 ppm 8 timer
	15 Minuten		Minuten	godzinach	TWA: 275 mg/m ³ 8 timer
	MAK-TMW: 500 ppm 8		TWA: 400 ppm 8	_	STEL: 200 ppm 15
	Stunden		Stunden		minutter.
	MAK-TMW: 2000 mg/m ³		TWA: 1600 mg/m ³ 8		STEL: 800 mg/m ³ 15
	8 Stunden		Stunden		minutter.

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
n-Heptane	TWA: 1600 mg/m ³	TWA-GVI: 500 ppm 8	TWA: 500 ppm 8 hr.	TWA: 500 ppm	TWA: 1000 mg/m ³ 8
		satima.	TWA: 2085 mg/m ³ 8 hr.	TWA: 2085 mg/m ³	hodinách.
		TWA-GVI: 2085 mg/m ³	STEL: 1500 ppm 15 min		Ceiling: 2000 mg/m ³
		8 satima.	STEL: 6255 mg/m ³ 15		
			min		

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
n-Heptane	TWA: 500 ppm 8 tundides. TWA: 2085 mg/m ³ 8 tundides.	TWA: 500 ppm 8 hr TWA: 2085 mg/m ³ 8 hr	STEL: 500 ppm STEL: 2000 mg/m³ TWA: 500 ppm TWA: 2000 mg/m³	STEL: 8000 mg/m³ 15 percekben. CK Substances with European indicative limits (96/94/EC,	TWA: 200 ppm 8 klukkustundum. TWA: 820 mg/m³ 8 klukkustundum. Ceiling: 400 ppm
				2000/39/EC, 2006/15/EC, 2009/161/EU), which currently has no peak limit concentration. In	Ceiling: 1640 mg/m ³
				these cases, Annex 3.1. should be used exercised TWA: 2000 mg/m³ 8 órában. AK	

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
n-Heptane	STEL: 500 ppm	TWA: 500 ppm IPRD	TWA: 500 ppm 8	TWA: 500 ppm	TWA: 500 ppm 8 ore
	STEL: 2085 mg/m ³	TWA: 2085 mg/m ³	Stunden	TWA: 2085 mg/m ³	TWA: 2085 mg/m ³ 8 ore
	TWA: 85 ppm	IPRD STEL: 750	TWA: 2085 mg/m ³ 8	_	
	TWA: 350 mg/m ³	ppm STEL: 3128	Stunden		
		mg/m³			

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
n-Heptane		TWA: 500 ppm TWA: 2085 mg/m ³		STV: 300 ppm 15 minuter STV: 1200 mg/m³ 15 minuter LLV: 200 ppm 8 timmar. LLV: 800 mg/m³ 8 timmar.	TWA: 500 ppm 8 saat TWA: 2085 mg/m³ 8 saat

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

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral				
Dermal				
Inhalation				

Predicted No Effect Concentration No information available. (PNEC)

8.2. Exposure controls

Engineering Measures

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

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 Safety glasses with side-shields (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	> 480 minutes	0.38 mm	Level 6	(minimum requirement)
Neoprene gloves	> 480 minutes	0.45 mm	EN 374	
Viton (R)	> 480 minutes	0.3 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 ProtectionNo 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

Small scale/Laboratory use Maintain adequate ventilation

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Colorless Physical State Liquid

OdorPetroleum distillatesOdor ThresholdNo data availablepHNo information available

n-Heptane Revision Date Oct-2018

Melting Point/Range -91 °C / -131.8 °F
Softening Point No data available
Boiling Point/Range 98 °C / 208.4 °F

Flash Point -4 °C / 24.8 °F Method - No information available

Evaporation Rate 2.8 (Butyl Acetate = 1.0)

Flammability (solid,gas) Not applicable Liquid Explosion Limits Lower 1 vol%

Upper 7 vol%

Vapor Pressure 48 mbar @ 20 °C

Vapor Density 3.5 (Air = 1.0) Specific Gravity / Density 0.683

Specific Gravity / Density 0.683

Bulk Density Not applicable Liquid

Water Solubility Insoluble

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Componentlog Pown-Heptane4.66

Autoignition Temperature 215 °C / 419 °F Decomposition Temperature Viscosity 215 °C / 419 °F No data available 0.4 mPa s at 20 °C

Explosive PropertiesNo information available
Vapors may form explosive mixtures with air

Oxidizing Properties No information available

9.2. Other information

Molecular FormulaC7 H16Molecular Weight100.20

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. Heat, flames and sparks. Keep away from open flames, hot

surfaces and sources of ignition.

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 toxicological effects

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

Revision Date Oct-2018 n-Heptane

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	
n-Heptane	>2000 mg/kg (rat)	LD50 = 3000 mg/kg (Rabbit)	LC50 = 103 g/m ³ (Rat) 4 h	

(b) skin corrosion/irritation; Category 2

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

(d) respiratory or skin sensitization;

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

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

There are no known carcinogenic chemicals in this product

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

(h) STOT-single exposure; Category 3

Results / Target organs Central nervous system (CNS).

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

Target Organs No information available.

(j) aspiration hazard; Category 1

delayed

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

tiredness, nausea and vomiting

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Very 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	Microtox
n-Heptane	LC50: = 375.0 mg/L, 96h (Cichlid fish)	EC50: >10 mg/L/24h		

12.2. Persistence and degradability

May persist, based on information available. **Persistence**

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

Component	log Pow	Bioconcentration factor (BCF)
n-Heptane	4.66	No data available

12.4. Mobility in soil The product is insoluble and floats on water. Spillage unlikely to penetrate soil. Disperses

rapidly in air.

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. Other adverse effects

n-Heptane Revision Date Oct-2018

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

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.

European Waste Catalogue (EWC)

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

Other Information

Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be 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 numberUN120614.2. UN proper shipping nameHeptanes

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

ADR

14.1. UN numberUN120614.2. UN proper shipping nameHeptanes

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

IATA

14.1. UN numberUN120614.2. UN proper shipping nameHeptanes14.3. Transport hazard class(es)3

14.4. Packing group

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. 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-Heptane	205-563-8	-		Χ	Χ	-	Χ	Χ	Χ	Χ	Х

National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
n-Heptane	WGK 2	

	Component	France - INRS (Tables of occupational diseases)
n-Heptane Tableaux des maladies professionnelles (TMP)		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 been conducted by the manufacturer/importer

SECTION 16: OTHER INFORMATION

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

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

CAS - Chemical Abstracts Service

Legend

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

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

IARC - International Agency for Research on Cancer

NZIoC - New Zealand Inventory of Chemicals

PNEC - Predicted No Effect Concentration

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

Inventory

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

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

ICAO/IATA - International Civil Aviation Organization/International Air

Transport Association

LD50 - Lethal Dose 50%

MARPOL - International Convention for the Prevention of Pollution from Ships

ATE - Acute Toxicity Estimate

TWA - Time Weighted Average

EC50 - Effective Concentration 50%

VOC - Volatile Organic Compounds

Key literature references and sources for data

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

Training Advice

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts. Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Chemical incident response training.

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

Revision Summary SDS section 1 updated and update of Format.

n-Heptane Revision Date Oct-2018

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

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