

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Revision date 23-May-2024

Revision Number 2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) 124215
Safety data sheet number 124215
Product Name PLI MECAFLUID P E

Pure substance/mixture Mixture

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

Recommended use Chemical

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

Not classified

Hazard statements

Not classified
EUH210 - Safety data sheet available on request

Unknown aquatic toxicity

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
MONOPROPYLENE GLYCOL 57-55-6	90 - 100%	200-338-0	-	-	-	-	-
ADIPIC ACID 124-04-9	0 - 10%	204-673-3 (607-144-00-9)	-	Eye Irrit. 2 (H319)	-	-	-
(BENZOTHAZOL-2-YLTHIO)ACETIC ACID 6295-57-4	0 - 10%	228-565-0	-	Aquatic Chronic 3 (H412) Repr. 2 (H361) Acute Tox. 4 (H302) Eye Dam. 1 (H318)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air. Get medical attention if symptoms occur.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Rinse mouth.

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

Eyes	May cause temporary eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media Dry chemical, CO₂, alcohol-resistant foam or water spray.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Carbon oxides. Phosphorus oxides. Oxides of sulphur. Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities**7.3. Specific end use(s)****Specific use(s)**

See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure Limits**

Chemical name	United Kingdom
MONOPROPYLENE GLYCOL 57-55-6	TWA: 150 ppm TWA: 474 mg/m ³ TWA: 10 mg/m ³ STEL: 450 ppm STEL: 1422 mg/m ³ STEL: 30 mg/m ³

Biological occupational exposure limits 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) - Workers

Chemical name	Oral	Dermal	Inhalation
MONOPROPYLENE GLYCOL 57-55-6			168 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]
ADIPIC ACID 124-04-9		38 mg/kg bw/day [4] [6] 38 mg/kg bw/day [4] [7]	264 mg/m ³ [4] [6] 264 mg/m ³ [4] [7] 5 mg/m ³ [5] [6] 5 mg/m ³ [5] [7]
(BENZOTHAZOL-2-YLTHIO)ACETIC ACID 6295-57-4		0.83 mg/kg bw/day [4] [6]	2.94 mg/m ³ [4] [6] 1 mg/m ³ [4] [7] 1 mg/m ³ [5] [6]

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
MONOPROPYLENE GLYCOL 57-55-6			50 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]
ADIPIC ACID 124-04-9	19 mg/kg bw/day [4] [6] 19 mg/kg bw/day [4] [7]	19 mg/kg bw/day [4] [6] 19 mg/kg bw/day [4] [7]	65 mg/m ³ [4] [6] 65 mg/m ³ [4] [7]
(BENZOTHAZOL-2-YLTHIO)ACETIC ACID	0.42 mg/kg bw/day [4] [6]		0.72 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
6295-57-4			

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
MONOPROPYLENE GLYCOL 57-55-6	260 mg/L	183 mg/L	26 mg/L		
ADIPIC ACID 124-04-9	0.126 mg/L	0.46 mg/L	0.0126 mg/L		
(BENZOTHAZOL-2-YLTH IO)ACETIC ACID 6295-57-4	14.5 µg/L	145 µg/L	1.45 µg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
MONOPROPYLENE GLYCOL 57-55-6	572 mg/kg sediment dw	57.2 mg/kg sediment dw	20000 mg/L	50 mg/kg soil dw	
ADIPIC ACID 124-04-9	0.484 mg/kg sediment dw	0.0484 mg/kg sediment dw	59.1 mg/L	0.0228 mg/kg soil dw	
(BENZOTHAZOL-2-YLTH IO)ACETIC ACID 6295-57-4	0.155 mg/kg sediment dw	0.0155 mg/kg sediment dw	22.7 mg/L	0.0226 mg/kg soil dw	

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Nitrile rubber. Neoprene gloves. Gloves must conform to standard EN 374.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	clear
Odour	No information available.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point		No information available.
Initial boiling point and boiling range	> 165.00 °C	ASTM D1120.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	110.00 °C	ASTM D92.
Autoignition temperature		No information available.
Decomposition temperature		No information available.
pH		No information available.
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	Soluble in water	Soluble in water.
Solubility(ies)		No information available.
Partition coefficient		No information available.
Vapour pressure		No information available.
Relative density	1.07	ASTM D5931.
Bulk density		No information available
Liquid Density	No information available	No information available
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under recommended storage conditions.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Nitrogen oxides (NOx). Carbon oxides.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

Inhalation	May cause irritation.
Eye contact	May cause temporary eye irritation.
Skin contact	May cause slight irritation.
Ingestion	Gastrointestinal discomfort.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
MONOPROPYLENE GLYCOL	> 20000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	317.042 mg/l (Rat) (2h)
ADIPIC ACID	> 11000 mg/kg (Rat)	> 7940 mg/kg (Rabbit)	> 7,7 mg/l (Rat) 4 h
(BENZOTHAZOL-2-YLTHIO)ACETIC ACID	= 1580 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Non-irritating during normal use Dryness and/or cracking

ADIPIC ACID (124-04-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	Dermal			Mild skin irritant

Serious eye damage/eye irritation No information available.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight eye irritation

ADIPIIC ACID (124-04-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD 405	Rabbit	eye			Causes serious eye irritation

Respiratory or skin sensitisation No information available.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Results
	Human evidence	Dermal	Not a skin sensitiser

ADIPIIC ACID (124-04-9)

Method	Species	Exposure route	Results
		Dermal	Not a skin sensitiser
		Inhalation	No sensitisation responses were observed

Germ cell mutagenicity No information available.

Component Information

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

ADIPIIC ACID (124-04-9)

Method	Species	Results
		Not mutagenic

Carcinogenicity No information available.

Component Information

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
		Did not cause cancer in laboratory animals.

ADIPIIC ACID (124-04-9)

Method	Species	Results
		Not Carcinogenic

Reproductive toxicity No information available.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

STOT - single exposure No information available.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.

ADIPIC ACID (124-04-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Not classified

STOT - repeated exposure No information available.

Component Information
ADIPIC ACID (124-04-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Not classified

Aspiration hazard No information available.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Not considered to be harmful to aquatic life.

Unknown aquatic toxicity

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	40613 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Ceriodaphnia dubia	LC50	18340 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth	Pseudokirchneriella subcapitata	ErC50	19000 mg/L	96 hours	

Inhibition Test					
	Pseudomonas putida	NOEC	> 20000 mg/L	18 hours	
Chronic aquatic toxicity	Ceriodaphnia dubia	NOEC	13020 mg/L	7 days	

ADIPIC ACID (124-04-9)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Brachydanio rerio	LC0	>1000 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	46 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Algae	EC50	59 mg/L	72 hours	

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
ADIPIC ACID	EC50: =31.3mg/L (72h, Desmodesmus subspicatus) EC50: =26.6mg/L (96h, Desmodesmus subspicatus)	LC50: =97mg/L (96h, Pimephales promelas)	-	EC50: =85.7mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F) or Equivalent.	28 days	Biodegradation 81%	Readily biodegradable
OECD Test No. 306: Biodegradability in Seawater or Equivalent.	64 days	Biodegradation 96%	Readily biodegradable

ADIPIC ACID (124-04-9)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	30 days	83 % Biodegradation	Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
MONOPROPYLENE GLYCOL	-1.07
ADIPIC ACID	0.093
(BENZOTHAZOL-2-YLTHIO)ACETIC ACID	1.6

12.4. Mobility in soil

Mobility in soil Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
MONOPROPYLENE GLYCOL	The substance is not PBT / vPvB
ADIPIC ACID	The substance is not PBT / vPvB
(BENZOTHAZOL-2-YLTHIO)ACETIC ACID	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2	
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated

14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

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

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report

No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H319 - Causes serious eye irritation

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		
Revision Note	***Indicates updated data since last publication		

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 Environmental Protection Agency
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 U.S. National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Prepared By Jitendra Panchal

Revision date 23-May-2024

**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
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**

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