

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

Revision date 13-Nov-2023

Revision Number 1

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

1.1. Product identifier

Product Code(s) 123971
Safety data sheet number 123971
Product Name MECACLEAN AL

Pure substance/mixture Mixture
Contains 2-AMINOETHANOL, 4-TERT-BUTYLBENZOIC ACID

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

Recommended use Lubricant

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

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Reproductive toxicity	Category 1B - (H360F)
Specific target organ toxicity — repeated exposure	Category 2 - (H373)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains 2-AMINOETHANOL, 4-TERT-BUTYLBENZOIC ACID

**Signal word**

Danger

Hazard statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H360 - May damage fertility or the unborn child

H360F - May damage fertility

H373 - May cause damage to organs through prolonged or repeated exposure

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

P201 - Obtain special instructions before use

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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

P310 - Immediately call a POISON CENTER or doctor

Unknown aquatic toxicity**Additional information**

This product requires tactile warnings if supplied to the general public.

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)
2-AMINOETHANOL 141-43-5	0 - 10%	205-483-3	-	Aquatic Chronic 3 (H412) Skin Corr. 1B (H314) Acute Tox. 4 (H332) Acute Tox. 4 (H302)	-	-	-

				Acute Tox. 4 (H312) STOT SE 3 (H335) Eye Dam. 1 (H318)			
4-TERT-BUTYLBENZ OIC ACID 98-73-7	0 - 10%	202-696-3 (607-698-00 -1)	-	Acute Tox. 4 (H302) Repr. 1B (H360F) STOT RE 1 (H372) Aquatic Chronic 2 (H411)	-	-	-
NITRIC ACID, REACTION PRODUCTS WITH CYCLODODECAN OL AND CYCLODODECAN ONE, BY-PRODUCTS FROM, HIGH-BOILING FRACTION 72162-23-3	0 - 10%	276-431-5	-	Eye Irrit. 2 (H319)	-	-	-

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**

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms	Burning sensation.
Eyes	Burning sensation.
Dermal	Irritating. Erythema (skin redness). Prolonged contact may cause redness and irritation.

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

Note to doctors	Treat symptomatically.
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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. Nitrogen oxides (NOx). Oxides of sulphur.
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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.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so.
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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.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Remove contaminated clothing and shoes. Ensure adequate ventilation.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

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

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
2-AMINOETHANOL 141-43-5		1 mg/kg/day [4] [6]	3.3 mg/m ³ [5] [6]
4-TERT-BUTYLBENZOIC ACID 98-73-7		0.017 mg/kg bw/day [4] [6] 0.15 mg/kg bw/day [4] [7]	0.067 mg/m ³ [4] [6] 1.2 mg/m ³ [4] [7]
NITRIC ACID, REACTION PRODUCTS WITH CYCLODODECANOL AND CYCLODODECANONE, BY-PRODUCTS FROM, HIGH-BOILING FRACTION 72162-23-3		18 mg/kg bw/day [4] [6]	127 mg/m ³ [4] [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
2-AMINOETHANOL 141-43-5	3.75 mg/kg [4] [6]	0.24 mg/m ³ [4] [6]	2 mg/m ³ [5] [6]
4-TERT-BUTYLBENZOIC ACID 98-73-7	1.6 mg/kg bw/day [4] [6]		
NITRIC ACID, REACTION PRODUCTS WITH CYCLODODECANOL AND CYCLODODECANONE,	9 mg/kg bw/day [4] [6]		31.3 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
BY-PRODUCTS FROM, HIGH-BOILING FRACTION 72162-23-3			

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

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
2-AMINOETHANOL 141-43-5	0.085 mg/l		0.0085 mg/l		
4-TERT-BUTYLBENZOIC ACID 98-73-7	24 µg/L	240 µg/L	2.4 µg/L		
NITRIC ACID, REACTION PRODUCTS WITH CYCLODODECANOL AND CYCLODODECANONE, BY-PRODUCTS FROM, HIGH-BOILING FRACTION 72162-23-3	0.0386 mg/L	0.386 mg/L	0.00386 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
2-AMINOETHANOL 141-43-5	0.434 mg/kg	0.0434 mg/kg		0.0367 mg/kg	100 mg/l
4-TERT-BUTYLBENZOIC ACID 98-73-7	30.1 µg/kg sediment dw	3.01 µg/kg sediment dw	32 mg/L	7.36 µg/kg soil dw	
NITRIC ACID, REACTION PRODUCTS WITH CYCLODODECANOL AND CYCLODODECANONE, BY-PRODUCTS FROM, HIGH-BOILING FRACTION 72162-23-3	0.383 mg/kg sediment dw	0.0383 mg/kg sediment dw		0.054 mg/kg soil dw	

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

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

Hand protection Wear suitable gloves. Impervious gloves. Ensure that the breakthrough time of the glove

material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
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.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No information available.
Initial boiling point and boiling range	> 100 °C	
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	> 100 °C	
Autoignition temperature		No information available.
Decomposition temperature		No information available.
pH	9.70	
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	Miscible in water	
Solubility(ies)		No information available.
Partition coefficient		No information available.
Vapour pressure		No information available.
Relative density	1.01	
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.

10.2. Chemical stability

Stability Stable under normal conditions.

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.

10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx). Phosphorus oxides. Oxides of sulphur.

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

Inhalation May cause irritation.

Eye contact Causes serious eye damage.

Skin contact Causes skin irritation.

Ingestion Ingestion above therapeutic dose may cause nausea, vomiting, dizziness, and headache.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

Acute toxicity**Numerical measures of toxicity**

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

ATEmix (oral)	8,049.50 mg/kg
ATEmix (dermal)	19,695.60 mg/kg
ATEmix (inhalation-gas)	109,756.10 ppm
ATEmix (inhalation-vapour)	268.30 mg/l
ATEmix (inhalation-dust/mist)	27.60 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-AMINOETHANOL	1720 mg/kg (Rat)	1025 mg/kg (Rabbit)	-
4-TERT-BUTYLBENZOIC ACID	= 473 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 1.802 mg/L (Rat) 4 h
NITRIC ACID, REACTION PRODUCTS WITH CYCLODODECANOL AND CYCLODODECANONE, BY-PRODUCTS FROM, HIGH-BOILING FRACTION	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-

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

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity May damage fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	United Kingdom
4-TERT-BUTYLBENZOIC ACID	Repr. 1B

STOT - single exposure No information available.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard No information available.

Other adverse effects No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
4-TERT-BUTYLBENZOIC ACID	3.4

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
4-TERT-BUTYLBENZOIC ACID	The substance is not PBT / vPvB
NITRIC ACID, REACTION PRODUCTS WITH CYCLODODECANOL AND CYCLODODECANONE, BY-PRODUCTS FROM, HIGH-BOILING FRACTION	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 contains one or more substances subject to restriction (UK REACH - Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
4-TERT-BUTYLBENZOIC ACID - 98-73-7	Use restricted. See item 30. Restricted Reproductive Toxin 1B	-

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/NDL	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
KECL	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/NDL - 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**

H302 - Harmful if swallowed
 H312 - Harmful in contact with skin
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H319 - Causes serious eye irritation
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 H360F - May damage fertility
 H372 - Causes damage to organs through prolonged or repeated exposure
 H411 - Toxic to aquatic life with long lasting effects
 H412 - Harmful to aquatic life with long lasting effects

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
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)
EPA (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)
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

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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