TOR ARMOR®

Safety Data Sheet

according to the Hazardous Substances and New Organisms Act (1996)
Issue date: 23/09/2022 Revision date: 23/09/2022 Supersedes: 23/09/2022 Version: 1.1

SECTION 1: Identification

1.1 Product identifier

Trade name : TOR ARMOR®
Product form : Mixture

1.2 Other means of identification

No additional information available

1.3 Recommended use of the chemical and restrictions on use

No additional information available

1.4 Details of manufacturer or importer

Manufacturer
Whitmore
930 Whitmore Drive
Rockwall, Texas 75087
USA
T 1.972.771.1000
Regulatory@whitmores.com - www.whitmores.com

Distributor
Industrial Lubricants & Services Limited
P.O. Box 259 347
Botany, Manukau 2163 Aukland
New Zealand
T 0800 10 40 11 - F 0800 10 40 15
orders@ils.co.nz - www.ils.co.nz

1.5. Emergency phone number

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1.800.424.9300
Outside USA and Canada: +1.703.527.3887
(collect calls accepted)

Country	Organisation/Company	Address	Emergency number	Comment
New Zealand	Chemtrec - New Zealand	Auckland	Local (City) +64 9-801 0034	
New Zealand	Chemtrec - New Zealand		Toll Free 0800 425 459	
New Zealand	New Zealand National Poison Centre Dunedin School of Medicine, University of Otago	P.O. Box 56 9054 Dunedin	0800 764 766 ILS Technical Helpline 0800 10 40 17	

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

2.2. GHS Label elements, including precautionary statements

GHS NZ labelling

Hazard statements (GHS NZ) : H412 - Harmful to aquatic life with long lasting effects
Prevention : P273 - Avoid release to the environment.
Disposal : P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to GHS NZ
Barium Sulfate	CAS-No.: 7727-43-7	3.995	Aquatic Acute 2, H401 Aquatic Chronic 2, H411

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

No additional information available

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures : Exercise caution. Spill area may be slippery.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

Barium Sulfate (7727-43-7)	
New Zealand - Occupational Exposure Limits	
Local name	Barium sulphate
WES-TWA (OEL TWA) [1]	10 mg/m³
Regulatory reference	Workplace Exposure Standards and Biological Exposure Indices, 12th Edition

Exposure limit values for the other components

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Neoprene or nitrile rubber gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR)	2 (> 30 minutes)	0.3 mm - 0.6 mm		

Eye protection : Wear eye protection
Skin and body protection : Wear suitable protective clothing
Respiratory protection : No respiratory protection needed under normal use conditions
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Colour : dark grey
Odour : Mild odor
Odour threshold : No additional information available
pH : 7.5 – 8
Evaporation rate : No additional information available
Relative evaporation rate (butylacetate=1) : No data available
Melting point / Freezing point : Melting point: Not applicable
Boiling point : No data available
Flash point : Not applicable.
Auto-ignition temperature : No data available
Flammability : Not flammable
Vapour pressure : No additional information available
Relative density : No additional information available
Density : No additional information available
Solubility : Slightly soluble.
Partition coefficient n-octanol/water (Log Pow) : No data available
Viscosity, kinematic : > 22 mm²/s @ 40° C

Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Explosive limits	:	No additional information available
Minimum ignition energy	:	No data available
VOC content	:	< 0.1 %

SECTION 10: Stability and reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	None under recommended storage and handling conditions (see section 7).
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Toxicity

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Barium Sulfate (7727-43-7)	
LD50 oral rat	> 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))

Skin corrosion/irritation	:	Not classified pH: 7.5 – 8
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified

Barium Sulfate (7727-43-7)	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Effect type: carcinogenicity (migrated information)
NOAEL (chronic, oral, animal/female, 2 years)	75 mg/kg bodyweight Animal: rat, Animal sex: female, Remarks on results: other:Effect type: carcinogenicity (migrated information)

Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified

TOR ARMOR®	
Viscosity, kinematic	> 22 mm²/s @ 40° C

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	:	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short–term (acute)	:	Not classified
Hazardous to the aquatic environment, long–term (chronic)	:	Harmful to aquatic life with long lasting effects.
Soil toxicity	:	Not classified
Terrestrial vertebrate toxicity	:	Not classified
Terrestrial invertebrate toxicity	:	Not classified

Barium Sulfate (7727-43-7)	
LC50 - Fish [1]	> 174 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	32 mg/l

Barium Sulfate (7727-43-7)	
EC50 72h - Algae [1]	> 1.15 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	> 30.07 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
BCF - Fish [1]	1.2 – 74.4 l/kg (Lepomis macrochirus, Fresh water, Experimental value)
LD50 oral rat	> 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))

12.2. Persistence and degradability

TOR ARMOR®	
Persistence and degradability	No additional information available
Barium Sulfate (7727-43-7)	
Not rapidly degradable	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

TOR ARMOR®	
Bioaccumulative potential	No additional information available
Barium Sulfate (7727-43-7)	
BCF - Fish [1]	1.2 – 74.4 l/kg (Lepomis macrochirus, Fresh water, Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

TOR ARMOR®	
Mobility in soil	No additional information available
Barium Sulfate (7727-43-7)	
Ecology - soil	No (test) data on mobility of the substance available.

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

IMDG	IATA	UNRTDG
14.1. UN number		
Not regulated for transport		

IMDG	IATA	UNRTDG
14.2. UN Proper Shipping Name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

Transport by road and rail
No data available

Transport by sea
No data available

Air transport
No data available

14.7. Transport in bulk according to IMO instruments

Not applicable

14.8. Hazchem or Emergency Action Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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Full text of H-statements	
Aquatic Acute 2	Hazardous to the aquatic environment – Acute Hazard, Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), New Zealand

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.