

SAFETY DATA SHEET

Protox Turbo Additive

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

1.1. Product identifier

Trade name

Protox Turbo Additive

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

▼ Relevant identified uses of the substance or mixture

Additive

Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Restore Solutions

4 sourris court

4152 Queensland Carina

Australia

0411501931

www.restoresolutions.com.au

Contact person

Garry Carroll

E-mail

admin@restoresolutions.com.au

SDS date

4/1/2024

SDS Version

2.0

Date of previous version

20/12/2022 (1.0)

1.4. ▼ Emergency telephone number

In an emergency call 000

In less severe situations call the Poisons Information Centre: 13 11 26 (Available 24/7 from anywhere in Australia) See section 4 "First aid measures".

SECTION 2: Hazards identification

This material is considered hazardous according to the Work Health and Safety Regulations.

2.1. Classification of the substance or mixture

Met. Corr. 1; H290, May be corrosive to metals.

Acute Tox. 4; H302, Harmful if swallowed.

Skin Corr. 1; H314, Causes severe skin burns and eye damage.

Eye Dam. 1; H318, Causes serious eye damage.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

May be corrosive to metals. (H290)

Harmful if swallowed. (H302)

Causes severe skin burns and eye damage. (H314)



Precautionary statement(s)

General

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Prevention

Do not breathe vapour/mist. (P260)

Wear face protection/protective gloves/protective clothing. (P280)

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . (P303+P361+P353) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)

Storage

Store in a container with a resistant inner liner. (P406)

▼ Disposal

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

potassium hydroxide; caustic potash

Additional labelling

Not applicable.

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▼ Hazard pictogram(s)



▼ Signal word

Danger

▼ Hazard statement(s)

Causes severe skin burns and eye damage. (H314)

2.3. Other hazards

▼ Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. ▼ Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
potassium hydroxide;caustic potash	CAS No.: 1310-58-3 EC No.: 215-181-3	40-60%	Acute Tox. 4, H302 Skin Corr. 1A, H314 Skin Corr. 1B, H314 (SCL: 2.00 %) Skin Irrit. 2, H315 (SCL: 0.50 %) Eye Irrit. 2, H319 (SCL: 0.50 %)	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

▼ Other information

SECTION 4: First aid measures

4.1. ▼ Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – bring the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with

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him/her.

▼ Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

▼ Eve contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

▼ Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Not applicable.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Some metal oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure call the NSW Poisons Information Centre on 13 11 26 (Available 24/7) in order to obtain further advice.

Hazchem Code: 2R

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

6.3. ▼ Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Store in a container with a resistant inner liner.

Recommended storage material

Keep only in original packaging.

Storage temperature

Dry, cool and well ventilated

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. ▼ Control parameters

potassium hydroxide; caustic potash

Long term exposure limit (8 hours) (mg/m³): 2 Peak limitation

Workplace exposure standards for airborne contaminants (Safe Work Australia).

▼ DNFI

potassium hydroxide; caustic potash

Duration:	Route of exposure:	DNEL:	
Long term – Local effects - General population	Inhalation	1 mg/m³	
Long term – Local effects - Workers	Inhalation	1 mg/m³	

PNEC

No data available.

8.2. ▼ Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

▼Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Ensure that eyewash stations and safety showers are located within easy reach.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

▼ Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

▼ Generally

Wash contaminated clothing before reuse.

Use only protective equipment that carries the RCM symbol.

Respiratory Equipment

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	Туре	Class	Colour	St	andards	
	No special when used as intended.					
Sk	in protection					
	Work situation	Recommended	Type/Cate	egory St	andards	
	When there is risk of splash- / intermittent exposure	Dedicated work cloth should be worn	ning -	-		M
На	and protection					
	Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
	When there is risk of	Nitrile	-	-	EN374-2	m

Eye protection

exposure

splash-/intermittent

Work situation	Туре	Standards
When there is risk of splash- / intermittent exposure	Face shield alternatively safety glasses with side shields.	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form

Liquid

Colour

Colourless

Odour

Sharp/pungent

Odour threshold (ppm)

No data available

рΗ

14

Density (g/cm³)

1.45

▼ Kinematic viscosity

Not applicable

Phase changes

Melting point (°C)

Testing not relevant or not possible due to the nature of the product.

Boiling point (°C)

136

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Relative vapour density

Not applicable

Decomposition temperature (°C)

Not applicable

Evaporation rate (n-butylacetate = 100)

No data available

Data on fire and explosion hazards

Flash point (°C)

No data available

Flammability (°C)

Not applicable

Auto-ignition temperature (°C)





Not applicable

Explosion limits (% v/v)

Not applicable

Explosive properties

Not applicable

Oxidizing properties

Not applicable

Solubility

Solubility in water

Completely soluble

n-octanol/water coefficient (LogKow)

Not applicable - inorganic material

Solubility in fat (g/L)

Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. ▼ Hazardous decomposition products

Thermal decomposition may produce corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. ▼ Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Dispose of contents/container to an approved waste disposal plant.

▼ Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 14.2 UN / ID UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADG	UN1814 POTASSIUM HYDROXIDE SOLUTION	Transport hazard class: 8 Label: 8 Classification code: C5	II	No	Limited quantities: 1 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN1814 POTASSIUM HYDROXIDE SOLUTION	Transport hazard class: 8 Label: 8 Classification code: C5	II	No	Limited quantities: 1 L EmS: F-A S-B See below for additional information.
IATA	UN1814 POTASSIUM HYDROXIDE SOLUTION	Transport hazard class: 8 Label: 8 Classification code: C5	II	No	See below for additional information.

^{*} Packing group

Additional information

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

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^{**} Environmental hazards





This product is within scope of the regulations of transport of dangerous goods.

Hazchem Code: 2R

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Demands for specific education

No specific requirements.

Control of major hazard facilities

Flammable Material / Treshold quantity: 200 tonnes

Additional information

Not applicable.

▼ The Australian Inventory of Industrial Chemicals (AIIC)

potassium hydroxide; caustic potash is listed

Sources

National Standard for the Control of Major Hazard Facilities [NOHSC:1014(2002)].

Model Work Health and Safety Regulations as at 1 January 2021.

15.2. Chemical safety assessment

Nο

SECTION 16: Other information

▼ Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H319, Causes serious eye irritation.

The full text of identified uses as mentioned in section 1

None known.

Abbreviations and acronyms

ADG = The Australian Code for the Transport of Dangerous Goods by Road & Rail

AICIS = Australian Industrial Chemicals Introduction Scheme

AIIC = Australian Inventory of Industrial Chemicals

AS = Australian Standard

AS/NZS = Australian New Zealand Standard

ATE = Acute Toxicity Estimate

AUH = Hazard statements specific for Australia

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

EINECS = European Inventory of Existing Commercial chemical Substances

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

Hazchem = Hazardous chemicals

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. (""Marpol"" = marine pollution)

NICNAS = National Industrial Chemicals Notification and Assessment Scheme (replaced by AICIS since 2020)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

RCM = Regulatory Mark of Conformity

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

SCL = A specific concentration limit

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STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

SUSMP = Standard for the Uniform Scheduling of Medicines and Poisons

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

WHS = Work Health and Safety Regulations

▼ Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by the Work Health and Safety Regulations.

The classification of the mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion given by the Work Health and Safety Regulations.

▼ The safety data sheet is validated by

НМ

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: AU-en

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