

SAFETY DATA SHEET - Turbiclear™



ABN: 49 158 485 039

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1. IDENTIFICATION OF MATERIAL AND SUPPLIER

Product Name: **Turbiclear**
Chemical Name: **Aluminium chlorohydrate, ACH (83-85% basic)**
Supplier: **TURBID PTY LTD**

Emergency Contact Information

Telephone: (07) 5471 2290
Email: info@turbid.com.au
Address: 5 Vision Court, Noosaville QLD 4566
Poisons Information Centre: Phone 13 11 26 from anywhere in Australia

2. HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

Classified as: NOT HAZARDOUS according to the criteria of Safe Work Australia
NON-DANGEROUS GOODS by the criteria of Australian Dangerous Goods Code
(ADG Code) for transport by road and rail.
Risk phrases: Not Hazardous – No criteria found
Safety phrases: S23: Do not breathe mist, S25 Avoid contact with eyes, S36 Wear suitable
protective clothing
ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods
(ADG) Code, IATA or IMDG/IMSBC criteria.
UN Number: NONE. Not hazardous.

HAZARD STATEMENT: H335: May cause respiratory irritation.

PREVENTION: P102: Keep out of reach of children.
P262: Do not get in eyes, on skin, or on clothing.
P281: Use personal protective equipment as required.

RESPONSE: P362: Take off contaminated clothing and wash before reuse.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: If eye irritation persists: Get medical advice.

RESPONSE (cont):	P370+P378: Not combustible. Use extinguishing media suited to burning materials
STORAGE:	P403+P233: Store in a well-ventilated place. Keep container tightly closed.
DISPOSAL:	P501: If they cannot be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Reference in AICS: YES

Name	CAS Number	Proportion	TWA (mg/m ³)	STEL (mg/m ³)
Aluminium chlorohydrate ACH	1327-41-9	40 to 60 %	2	Not set
Water	7732-18-5	To 100%	Not set	Not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

4. FIRST AID MEASURES

Eye contact:	Flush with water for 15 minutes. Seek medical attention.
Skin contact:	Irritation is unlikely, however, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes.
Inhalation:	Remove from source of mist, allow patient to stabilize breathing in fresh air. If symptoms persist seek medical attention.
Ingestion:	Rinse mouth with water. Do not induce vomiting. If in doubt seek medical advice.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Compatible with water, foam, CO ₂ and dry chemical. Fires can be attacked with extinguishers to suit local flammable/combustible materials
Flash point (°C):	Material is non-flammable and non-combustible.
Auto ignition point (°C):	Not applicable.
Explosion Limits in Air (% by volume):	Not applicable.
Special Procedures:	None.
Unusual hazards:	None known.
Conditions to avoid:	None known.
Materials to avoid:	May emit some chlorine gas when in contact with very strong oxidizing agents; some heat liberated when in contact with strong acids.
Decomposition products:	Severe overheating may produce hydrogen chloride gas and aluminium oxide once water has been driven off.
Hazardous polymerization:	Will not occur.

6. ACCIDENTAL RELEASE MEASURES

General Response:	Personnel involved in the clean-up should wear appropriate protective clothing as listed in section 2. Slippery when spilt.
Clean Up Procedure:	Spillage into waterways will result in some lowering of the pH and the formation of aluminium hydroxide, which has a very low toxicity. Prevent drain or sewer contamination with absorbent such as sand or sawdust etc. Collect for disposal.

7. HANDLING & STORAGE

Handling:	Observe good personal hygiene practices and recommended procedures. Wash thoroughly with soap and water after handling.
Storage:	Do not store in metal containers other than stainless steel. When storing in stainless steel, Store in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:	None Established
Engineering Controls:	Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations
Personal Protective Equipment:	None required
Respiratory Protection:	General exhaust ventilation should be adequate.
Eye Protection:	Safety Glasses
Skin and body protection:	Disposable latex gloves, overalls or apron as appropriate. Rubber boots can be used in wet conditions but mainly as protection from the water

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to slightly hazy aqueous solution
Odour:	None
Boiling point (°C):	100-110°C
Melting point (°C):	Not available
Specific Gravity (H ₂ O = 1):	1.36 - 1.39 at 25°C
pH:	3.0 – 3.5 at 25°C
Vapour pressure (kPa):	Not applicable
Relative vapour density:	Not applicable
Volatile by weight (%):	Roughly 50 (prolonged drying leads to product change)
Solubility in water:	Completely miscible
Evaporation rate:	Not applicable

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions to avoid:	Oxidizing agents may cause exothermic reactions. Keep containers tightly closed
Decomposition products:	Severe overheating may produce hydrogen chloride gas and aluminium oxide once water has been driven off.
Hazardous polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral: LD50/oral/rat > 3311 mg/Kg

Inhalation: Product is not volatile

Irritation:

Skin: Mild skin irritant. May cause skin irritation with prolonged contact

Eyes: Irritation and redness.

Chronic Toxicity: No chronic effects

Threshold limit value: 2 mg/m³ based on Al (roughly 0.25 mg/m³ based on actual product (Ref.: ACGIH, soluble Aluminium salts)

Target organs: There is no data to hand indicating any particular target organs.

12. ECOLOGICAL INFORMATION

Environmental fate and distribution:

Aluminium compounds are common in most soils and are the principle components of Bauxite and Gibbsite, which are common, naturally occurring minerals. When diluted by copious quantities of water (for example, to the point that the concentration is less than about 100 grams per cubic meter), this product will hydrolyze rapidly to form aluminium hydroxide, which can be expected to become a part of the natural soil profile if not recovered. Turbiclear should be stored in a location that if a leakage occurs the product will not lead directly to a natural water way to minimise any potential risk.

Ecotoxicity:

Direct Toxicity Assessment

Whole of Effluent Ecotoxicity Testing undertaken on construction site water treated with Turbiclear in 2017 indicated no effect to either the Australian freshwater flea or Eastern Rainbowfish at full concentration.

For the 48-hr acute toxicity test using the freshwater cladoceran *Ceriodaphnia dubia* the EC50 = >100% (at 100% concentration, no affect was observed).

For the 96-hr fish imbalance toxicity test using the eastern rainbowfish *Melanotaenia splendida splendida* the EC50 = >100% (at 100% concentration, no affect was observed).

Effective Concentration Method Assessment

Aquatic toxicity carried out by others on Aluminium Chlorohydrate solution indicated that:

For the 48-hr acute toxicity test using the freshwater flea *Daphnia magna* the LC50 = 397mg/L

For the 96- hr acute toxicity test using the freshwater fish *Pimelphales promelas* the LC50 = 832mg/L

Bioaccumulative Potential:

Does not bio accumulate.

13. DISPOSAL CONSIDERATIONS

Waste disposal method:

Refer to local waste disposal authority. This product can be neutralized with alkali to form a mixture of aluminium hydroxide and the chloride salt of the alkali. The resulting mixture is non- hazardous provided the resulting pH is between roughly 5 and 10.

14. TRANSPORT INFORMATION

This product does not carry a Dangerous Goods classification as corrosion tests have verified that it is not corrosive to either skin or to metals.

15. REGULATORY INFORMATION

This product is to be found in the public AICS database.

16. OTHER INFORMATION

This SDS was prepared in accordance with the Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals.

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS Australian Inventory of Chemical Substances
SWA Safe Work Australia, formerly ASCC and NOHSC
CAS Number Chemical Abstracts Service Registry Number
Hazchem code Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC International Agency for Research on Cancer
NOS Not otherwise specified
NTP National Toxicology Program (USA)
R-Phase Risk Phrase
SUSMP Standard for the Uniform Scheduling of Medicines & Poisons
Un Number United Nations Number

References cited:

1. American Conference of Governmental Industrial Hygienists (ACGIH), Documentation of the Threshold Limit Values and Biological Exposure Indices, 6th Edition, ACGIH, Cincinnati, Ohio, 1991.
2. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]
3. Registry of Toxic Effects of Chemical Substances (RTECS)
4. Sax's, Dangerous Properties of Industrial Materials, Edition 8, Ed. RJ Lewis Sr., van Nostrand Reinhold.

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This SDS summarizes to our best knowledge of health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. Please contact the company if any further information is required.