

SAFETY DATA SHEET - Turbiclear EXTRA™



ABN: 49 158 485 039

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1. IDENTIFICATION OF MATERIAL AND SUPPLIER

Product Name: **Turbiclear EXTRA™**
 Chemical Nature: **Blend of Aluminium chlorohydrate, ACH (83-85% basic) and Chitosan**
 Supplier: **TURBID PTY LTD**

Emergency Contact Information

Telephone: (07) 5471 2290
 Fax: (07) 5471 2209
 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
 Classified as: 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 allocated
 None allocated: NONE. Not hazardous.

HAZARD STATEMENT: H335: May cause respiratory, eyes and skin 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.

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| 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 hydroxychloride | 1324-41-9 | 20-30% | 1 | Not set |
| Non-Hazardous Ingredients | Not available | 40-50% | Not set | Not set |
| Organic Polymer(s) | - | <2.5% | Not set | Not set |
| Organic Acid(s) | - | <1% | Not set | 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

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| Eye contact: | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes. |
| Skin contact: | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Irritation is unlikely, however, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes. |
| Inhalation: | If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. |
| Ingestion: | For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. |

5. FIRE FIGHTING MEASURES

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| Extinguishing media: | Compatible with water, foam, CO2 and dry chemical. Fires can be attacked with extinguishers to suit local flammable/combustible materials. |
| Flash point (°C): | Material is non-flammable. May evolve toxic gases (acetic acid, hydrocarbons, carbon oxides) when heated to decomposition. |
| 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. |

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| 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. May evolve toxic gases (acetic acid, hydrocarbons, carbon oxides) when heated to decomposition. |
| Hazardous polymerization: | Will not occur. |
| Advice for firefighters: | Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas. |

| 6. ACCIDENTAL RELEASE MEASURES | |
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| 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. Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. |

| 7. HANDLING & STORAGE | |
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| Handling: | Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas. |
| Storage: | Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Do not store in metal containers other than stainless steel. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Store as a Class C2 Combustible Liquid (AS1940). Turbiclear Extra has a shelf life of 12 months. Batches should be marked with production date and expiry date of 12months. |

| 8. EXPOSURE CONTROLS / PERSONAL PROTECTION | |
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| National Exposure Standards | None Established |
| Engineering Controls: | Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard. |
| Personal Protective Equipment: | None Required. |
| Respiratory Protection: | General exhaust ventilation should be adequate. |
| Eye Protection: | Wear splash-proof goggles. |
| 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 | |
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| Appearance: | Clear to slightly hazy gel. |
| Odour: | Slight odour. |
| Boiling point (°C): | Approximately 100°C |
| Melting point (°C): | Approximately 0°C |

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| Specific Gravity (H ₂ O = 1): | 1.18-1.20 at 25°C |
| pH | 3.0 – 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

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| Chemical Stability | Stable under normal conditions of storage. |
| Conditions to avoid: | Avoid heat, sparks, open flames and other ignition sources. Oxidizing agents may cause exothermic reactions. Keep containers tightly closed. |
| Incompatible Materials | Incompatible with oxidising agents (e.g. hypochlorites), alkalis (e.g. sodium hydroxide), heat and ignition sources. |
| Decomposition products: | May evolve toxic gases (acetic acid, hydrocarbons, hydrogen chloride gas, aluminium oxide and carbon oxides) when heated to decomposition. |
| Hazardous polymerization: | Will not occur. |

11. TOXICOLOGICAL INFORMATION

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| 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/m ³ based on Al (roughly 0.25 mg/m ³ 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 200 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 Extra 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. Chitosan is a derivative of Chitin, the world's second most abundant biopolymer after cellulose and readily biodegrades. It is commonly obtained from natural sources such as crustaceans and fungi.

Ecotoxicity:

Direct Toxicity Assessment

Whole of Effluent Ecotoxicity Testing undertaken on construction site water treated with a component of Turbiclear Extra 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. Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.

Wearing protective equipment detailed above, and ensuring any ignition sources are eliminated, absorb with sodium carbonate - sodium bicarbonate, collect and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required).

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

All components are listed on AICS database or are exempt.

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.

Revision 2: Issued 20 Feb 20

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.