



MATERIAL SAFETY DATA SHEET – Hydrogel

Version 2

Date: 09 September 2015

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Product information

Product name: Hydrogel

Company: I-Cat Environmental Services Pty Ltd, Unit 33, Scientia Techno Park, Scientia, Pretoria

Tel: +27 (0)861124228

Emergency: +27 (0) 861124228

Fax: +27 (0) 117046150

2. COMPOSITION / INFORMATION ON INGREDIENTS

Potassium polyacrylate , cross- linked

3. HAZARDS IDENTIFICATION

Spilled product in contact with water or moisture causes surfaces to become extremely slippery. Keep out of reach of children.

4. FIRST AID MEASURES

INHALATION: Remove to fresh air if irritation occurs. Implement appropriate controls to prevent further exposure.

INGESTION: Normally not necessary to induce vomiting. Consult physician if pain or discomfort occurs.

EYES: If dust enters eye, flush with running water to remove particles.

SKIN: Wash affected areas with soap and running water to remove particles.



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5. FIRE FIGHTING MEASURES

Specific hazards during fire fighting: carbon monoxide and nitrogen oxides

Special protective equipment for fire fighters: No special equipment required

Suitable extinguishing media: Water mist, foam, carbon dioxide, dry powder

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Spilled product in contact with water or moisture causes surfaces to become extremely slippery.

Environmental precautions: Collect and flush small residuals with much water into the drain for subsequent biological waste effluent treatment.

7. HANDLING & STORAGE

Handling: Avoid breathing the dust. Wash thoroughly with water and soap after handling.

Storage: Store product in original packaging under dry conditions. Preferably room temperature or cooler. Avoid direct sunlight and excess heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Value: 0.05mg/m³

Remarks: Recommended limit for fine, inhalable polyacrylate dust below 0.01mm particle size. Provisional result of inhalation studies on animals using comparable dusts.

Respiratory Protection: Use respiratory protection when exceeding limit and dust is formed. Ensure sufficient workplace ventilation.

Ventilation: No special requirements under normal use conditions and adequate ventilation.

Eye protection: No special requirements.

Clothing/Gloves: No special requirements.



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Respirator: No special requirements under normal use conditions and adequate ventilation.

(Under conditions of frequent use or heavy exposure, respiratory protection may be needed.)

Hygiene measures: Obey reasonable safety precautions and practice good housekeeping.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Powder

Particle size: 0.2mm

Colour: white

Odour: Odourless

Other data

Fusing temperature: Not applicable

Starts to boil at: Not applicable

Flash point: Not applicable

Ignition temperature: Not determined

Upper explosion limit: Not applicable

Vapor pressure: <20hPa at 20.0°C

Bulk density: $\approx 700\text{kg/m}^3$

Water retention: $1\text{g} \leq 125\text{ml}$

Ph: ≈ 7.7 at 1.0 g/l

Viscosity, Dynamic: At 20.0°C/ not applicable



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10. STABILITY AND REACTIVITY

Thermal decomposition: >200°C / Stable under usual application conditions

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity: LD50 rat / Dose: >5000mg/kg / limit test

Acute Dermal Toxicity: LD50 rat / Dose: >2000mg/kg / limit test

Skin Irritation: Rabbit / method : OECD Nr. 404 – non-irritative to the skin

Eye Irritation: Rabbit / method : OECD Nr. 405 – non-irritative, but could cause damage to the eyes.

Sensitization: Guinea pig Method: OECD Nr. 406 No sensitization

Teratogenicity/ Mutagenicity: No information

12. ECOLOGICAL INFORMATION

Phytopathogens: Below threshold limits.

Ecotoxicity: Non-toxic to the environment.

Elimination information (persistence and degradability) / Biodegradability:

Result: Not rapidly degradable under aerobic conditions

Ciliate toxicity: Tetrahymena pyriformis / EC50 > 6000mg/l

Exposure time: 24:00h

Bacterial toxicity: Ps. Putida / EC50 > 6000mg/l

Exposure time: 24:00h

Method: DEV L8

Fish toxicity: Leuciscus idus / LC50 > 550mg/l

Exposure time: 96:00h

Method: OECD203



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Fish toxicity: Danio rerio / LC50 > 4000mg/l

Exposure time: 96:00h

Method: OECD203

13. DISPOSAL CONSIDERATIONS

Product: Dispose of whilst observing local legislation. E.g. in a suitable incineration plant.

Contaminated Packaging: Undamaged packaging may be responsibly reused after proper cleaning.

14. TRANSPORT INFORMATION

Land Transport

ADR: Not dangerous goods

RID: Not dangerous goods

Sea Transport

IMDG: Not dangerous goods

Air Transport

ICAO/IATA: Not dangerous goods

15. REGULATORY INFORMATION

(Labelling according to EEC Directive)

Symbol: None

Risk Phrases (R22): Harmful if swallowed

Safety Phrases (S1/2): Keep locked and out of reach of children.

National legislation: South African Occupational Health and Safety Act, 1993 Act 85 of 1993.



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16. OTHER INFORMATION

Residual Monomers: Acrylic acid < 600ppm.

Department responsible for data sheet: SUQ/Product safety.

Contact person: Leon van Rensburg

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