SAFETY DATA SHEET

Gel Flocculant 494

SECTION 1: IDENTIFICATION OF MIXTURE AND COMPANY

1.1 Product identifier

Gel Flocculant 494

CHEMICAL FAMILY: Polyacrylamide polymer

CAS NUMBER: none identified

CHEMICAL NAME: none identified

1.2 Relevant Identified Uses

Water treatment

1.3 Supplier

Frog Environmental Ltd

Business Contact

The Byre

0345 057 4040

www.frogenvironmental.co.uk

Emergency Contact

Bar Lane

Staffordshire DE13 8AJ

0345 057 4040 (not 24 hours)

24 Hour Emergency Contact

UK National Poisons Information Service:

0344 892 0111

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification

Not classified according to EU regulation 1272/2008 as implemented in The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019.

2.2 Label elements

No labeling required

2.3. Other hazards

No component meets the criteria of a PBT or vPvB substance according to EU regulation 1907/2006 as implemented in The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 (as amended)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

There are no components present, within the current knowledge of the supplier that are classified as hazardous to health or the environment and present at concentrations that require reporting in this section.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.

Skin

Wash skin with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If irritation occurs get medical attention.

Inhalation

Remove exposed person to fresh air. Seek medical attention if the patient feels unwell.

Eye

Flush eyes with large amounts of water for at least 15 minutes, lifting eyelids to insure complete flushing of surface. Seek medical attention if irritation persists.

Ingestion

Keep at rest. Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Keep airway clear. Seek medical attention.

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

Signs and Symptoms of Acute Exposure

Inhalation: vapours, mists or dusts of the product may be irritating to the respiratory system. May irritate mouth, nose, and throat.

Ingestion: May cause irritation of the lining of the stomach.

Skin: Mild to moderate irritation can occur.

Eyes: Can cause mild to moderate irritation.

Chronic Health Effects

Prolonged or repeated contact may cause defatting and drying of the skin. Prolonged or repeated contact may cause discomfort and local redness. No known other chronic effects.

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

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1. Extinguishing Media

Suitable: Use extinguishing media suitable for the surrounding fire..

Unsuitable: None.

5.2. Special hazards arising from the mixture

Hazardous Combustion Products: Carbon and Nitrogen Oxides (CO, CO_2, NO_x)

5.3. Advice for Firefighters

Protective Equipment/Clothing: Wear full protective clothing including positive pressure self-contained breathing apparatus.

Fire Fighting Guidance: Fight large fires from maximum distance or use unmanned hose handlers or monitor nozzles. Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until after fire is out.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate protective equipment (see section 8). Wet product and aqueous solutions of product are very slippery. Trace amounts of product on smooth surfaces can become extremely slippery when wet.

6.2 Environmental precautions

Prevent entry of concentrated solutions into waterways or sewers.

6.3. Methods and materials for containment and clear up

Sweep or scoop dry material and place in appropriate container. Absorb aqueous solutions with a dry inert material, such as clay, and place in an appropriate waste disposal container. After most of the material has been recovered, clean the area with warm, soapy water.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Normal precautions common to good manufacturing practice should be followed in handling and storage. Open and handle container with care. Keep the containers closed when not in use. Avoid physical damage to blocks. Use appropriate personnel protective equipment (See section 8).. Avoid contact with eyes, skin, and clothing. Do not ingest. After handling, wash hands thoroughly with soap and water.

7.2. Conditions for safe storage, including any incompatibilities.

Store in a cool, dry area. Store in accordance with good industrial practices. Keep away from direct sunlight. Protect against physical damage.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1. Control parameters

None identified.

8.2. Exposure controls

8.2.1. Engineering Controls

No specific measures required

8.2.2. Individual Personal Protection

Eye Safety: glasses are required as a minimum. Use splash goggles or a face shield when eye contact due to splashing is possible.

Skin: Wear nitrile, butyl or Viton® gloves. The specification of glove depends on the work being undertaken; consult manufacturer's recommendations. Breakthrough times >480 mins (thickness ≥0.1 mm). When skin contact is possible for other than the hands, protective clothing including gloves, apron, sleeves, boots, head and face protection should be worn. Protective clothing must be cleaned thoroughly after each use.

Respiratory: No specific measures required.

Thermal: No hazard

Additional Remarks: Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before reuse. Use care in walking on spilled material. Material spilled on hard surfaces can be a serious slipping/falling hazard.

8.2.3. Environmental exposure controls

No specific measures identified for normal handling and use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid

Colour: Yellow to white or off-white

Odor: Slight vinegar odour

Melting Point: > 100 °C

Boiling Point: > 100 °C

Flammability: not flammable

Lower/Upper Flammable Limit: Not applicable

Flash Point: No data available

Auto-Ignition temperature: No data available

Decomposition temperature: No data available

pH: 5-7.5 (concentration dependent)

Viscosity: Not applicable

Solubility (Water): Soluble in water but dissolves very slowly

Partition Coeffecient (KOW): No data available

Vapor Pressure: No data available

Relative density: ~1.1

Vapour density: No data available

Particle characteristics: Not applicable, bulk form

Other information : No relevant data identified

SECTION 10: STABILITY AND REACTIVITY

10.1: Reactivity

No hazardous reactions identified. Does not react with air, water or other common materials

10.2. Chemical Stability

This product is stable

10.3. Possibility of hazardous reactions

None identified. Hazardous polymerization will not occur

10.4. Conditions to Avoid

High temperatures

10.5. Incompatible materials

Oxidising agents. Strong bases may cause the release of ammonia

10.6. Hazardous Decomposition Products

Carbon and nitrogen oxides (CO, CO_2 NO_x)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes

Acute Toxicity: This product is of a low order of acute toxicity. Oral LD50 (Rat) >5000 mg/kg

Skin Irritation: Mild to moderate irritation can occur. Prolonged or repeated contact may cause defatting and drying of the skin

Eye irritation: Transient mild to moderate irritation can occur

Respiratory of skin sensitization: No known effects

Germ cell mutagenicity: No known effects

Carcinogenicity: No known effects

Reproductive toxicity: No known effects

Specific target organ toxicity – single exposure: No known effects

Specific target organ toxicity – repeated exposure: No known effects

Aspiration hazard: not applicable for solids

11.2. Other information

The substance is not expected to have endocrine disrupting properties. No other relevant information identified

SECTION 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Fish (Oncorhynchus mykiss): 96 hr LC_{50}: > 2500 mg/L.

Invertebrates (Daphnia magna): 48 hr EC_{50}: immobility 705 mg/L.

12.2. Persistence and Degradability

Not readily biodegradable but complete mineralization is expected under environmental exposure. Degradation initialization and rate are dependent on UV levels.

12.3. Bioaccumulation potential

The product is not expected to bioaccumulate.

12.4. Mobility in soil

The product is designed to bind to sediment and soil, so it is not expected to suffer from leaching or mobility.

12.5. Results of the PBT assessment

This product does not meet the criteria of a PBT or vPvB substance.

12.6 Endocrine disrupting properties

The substance is not expected to have endocrine disrupting properties

12.7 Other adverse effects

None identified

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods: Dispose of all waste must be in accordance with all applicable national and local health and environmental regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

SECTION 14: TRANSPORT INFORMATION

14.1: UN number: Not applicable. The products is not classified as dangerous for transport.

14.2: UN proper shipping name: The products is not classified as dangerous for transport.

14.3: Transport hazard classes: Not applicable. The products is not classified as dangerous for transport

14.4: Packing group: Not applicable. The products is not classified as dangerous for transport

14.5: Environmental hazards: None identified.

14.6: Special precautions for users: None identified.

14.7. Maritime transport in bulk: Not applicable. The products is not classified as dangerous for transport

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/ legislation specific for the product

EU REACH: All components of this product have been registered with the European Chemicals Agency or are exempt from registration.

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this product.

SECTION 16: OTHER INFORMATION

DATE: December 2022: First issue:

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