

1. IDENTIFICATION

Product Name: A-7660 Product description: Cationic Acrylamide Copolymer Supplier: Aspen Chemicals

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The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

2. HAZARDS IDENTIFICATION

According to Hazardous Products Regulations (HPR) (SOR/2015-17) Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

Hazards not otherwise classified

Very slippery when wet.

Labeling of special preparations (GHS):

This product is not combustible in the form in which it is shipped by the manufacturer, but may form a combustible dust through downstream activities (e.g. grinding, pulverizing) that reduce its particle size.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	CAS #	<u>%</u>
Acrylamide Copolymer	69418-26-4	<u>88-92%</u>
Water	7732-18-5	<u>8-12%</u>
		100%
Residual Acrylamide:	79-06-1	999ppm MAX

4. FIRST AID MEASURES

Contact with skin:

Wash with plenty of water and soap.

Contact with eyes:

Wash immediately with water for at least 15 minutes. If there is any irritation, **OBTAIN IMMEDIATELY MEDICAL ATTENTION.**

Swallowing:

Do not induce vomiting. Do not give anything to an unconscious person. Check for breathing and pulse, if present, place in the recovery position and obtain medical attention. If conscious rinse out the mouth with water. Give 3/4 L of water to drink immediately and repeat drinks of water at a rate of a cupful (approx. 250 mL) every 10 minutes.

SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety data sheet.

Inhalation:

Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, **OBTAIN MEDICAL ATTENTION.**

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: dry powder, foam, carbon dioxide Unsuitable extinguishing media for safety reasons: water jet

Additional information:

If water is used, restrict pedestrian and vehicular traffic in areas where slip hazard may exist.

Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon oxides, nitrogen oxides The substances/groups of substances mentioned can be released in case of fire. Very slippery when wet.

Advice for fire-fighters

Protective equipment for fire-fighting: Wear a self-contained breathing apparatus.

Further information:

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. ACCIDENTAL RELEASE MEASURES

Further accidental release measures:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Forms slippery surfaces with water.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Nonsparking tools should be used.

7. HANDLING AND STORAGE

Precautions for safe handling

Breathing must be protected when large quantities are decanted without local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Forms slippery surfaces with water. Protection against fire and explosion:

Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

Conditions for safe storage, including any incompatibilities

Unsuitable materials for containers: Aluminium Further information on storage conditions: Store in unopened original containers in a cool and dry place. Avoid wet, damp or humid conditions, temperature extremes and ignition sources. Storage stability: Avoid extreme heat.

Protect from temperatures above: 60 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

No occupational exposure limits known.

Advice on system design:

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields.

Body protection:

light protective clothing

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Wearing of closed work clothing is recommended. Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work.

a. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	White Granule Powder
Appearance:	Crystalline Powder
Odour:	Odourless
pH:	6-8

Melting Point: Boiling Point: Flash Point: Solid/ Gas Flammability: clouds may form Explosive Properties: Oxidizing Properties: Vapour Pressure:	N/A N/A N/A As with many organic powders flammable dust N/A N/A N/A
Relative Density:	600-900 Kg/m ³
Solubility in Water:	Limited by viscosity
Vapour Density:	N/A
Percent Volatile (% by Wt):	8-10%
Saturation in Air (% by Vol):	N/A
Evaporation Rate:	N/A
Autoignition Temperature:	N/A
Decomposition Temperature	: N/A
Partition Coefficient:	N/A
Odour Threshold:	N/A

10. STABILITY AND REACTIVITY

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated. Corrosion to metals: No corrosive effect on metal. Oxidizing properties: not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions. Stable under normal conditions.

Stable under normal conditions.

No hazardous reactions known.

Conditions to avoid

Avoid extreme temperatures. Avoid humidity.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products: Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

11. TOXICOLOGICAL INFORMATION

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity Assessment of acute toxicity: No known acute effects. Oral Type of value: LD50 Species: rat Value: > 5,000 mg/kg (OECD Guideline 401) Irritation / corrosion Assessment of irritating effects: Not irritating to eyes and skin. Skin Species: rabbit Result: non-irritant Method: OECD Guideline 404 Eve Species: rabbit Result: non-irritant Sensitization Assessment of sensitization: Based on the ingredients, there is no suspicion of a skin-sensitizing potential.

<u>Aspiration Hazard</u> No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statement has been derived from the properties of the individual components.

Genetic toxicity

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

Carcinogenicity

Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect.

None of the components in this product at concentrations greater than 0.1% are listed by IARC; NTP, OSHA or ACGIH as a carcinogen.

Reproductive toxicity

Assessment of reproduction toxicity: Based on the ingredients, there is no suspicion of a toxic effect on reproduction.

<u>Teratogenicity</u>

Assessment of teratogenicity: Based on the ingredients, there is no suspicion of a teratogenic effect.

Other Information

The product has not been tested. The statements on toxicology have been derived from products of a similar structure and composition.

Symptoms of Exposure

The most important known symptoms and effects are described in section 11., Further important symptoms and effects are so far not known.

12. ECOLOGICAL INFORMATION

Toxicity Toxicity to fish

LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss (static) (under static conditions in the presence of 10 mg/L humic acid)

<u>Aquatic invertebrates</u> LC50 (48 h) > 100 mg/l, Daphnia magna

Persistence and degradability

<u>Assessment biodegradation and elimination (H2O)</u> Not readily biodegradable (by OECD criteria).

Bio-accumulative potential

<u>Assessment bioaccumulation potential</u> Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments Information on: Anionic polyacrylamide Adsorption to solid soil phase is expected.

Additional information

Other ecotoxicological advice: The product has not been tested. The statements on ecotoxicology have been derived from products of a similar structure and composition.

13. DISPOSAL CONSIDERATIONS

Waste disposal of substance:

Must be disposed of or incinerated in accordance with local regulations.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. TRANSPORT INFORMATION

Land Transport (TDG, Transport Canada): Not classified as a dangerous good under transport regulations. Sea Transport (IMDG):

Not classified as a dangerous good under transport regulations. Air Transport (IATA/ICAO):

Not classified as a dangerous good under transport regulations.

15. REGULATORY INFORMATION

WHMIS CLASSIFICATION: Not WHMIS controlled

United States (USA): All components of this product are included on the TSCA

Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

European Union (EU): All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

16. OTHER INFORMATION

We value the health and safety of our employees, customers, suppliers and neighbours, and the protection of the environment. Our commitment is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.