

Pemion Safety Data Sheet (SDS)

FM-7009-C

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Revision: C	Prepared By: Dave Edwards	Effective Date: February 27, 2020
	Approved By: Tim Peckham	

This document is reviewed to ensure its continuing relevance to the systems and process that it describes.

Revision History:

Revision	Date	Description of Changes	Approved By
A	Jan 20, 2020	Initial Draft	Tim Peckham
B	Feb 27, 2020	Modified Regulatory Information Section	Tim Peckham
C	June 5, 2020	Change Product Code to PP1 to be consistent with quotes	Tim Peckham

1 – Product and Company Information

Product Name: Pemion™ (PP1)
Product Brand: Pemion™ Ionomer
Product Use: For research purposes only
Product Code: PP1

Company Information:

Ionomr Innovations Inc.
2386 East Mall
Unit 111
Vancouver, BC V6T 1Z8

2 – Hazard Identification**GHS Classifications:**

Classification: None

Signal Word: None

Pictograms and Symbols: None

Hazard Statements: None

Precautionary Statements:

- Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
- Skin: May be harmful if absorbed through the skin. May cause skin irritation.
- Eyes: May cause eye irritation.
- Ingestion: May be harmful if swallowed.

3 – Composition/Information on Ingredients

This is a polymeric material. All constituents are encapsulated within the polymer system and therefore presents no likelihood of exposure under normal conditions of processing and handling.

4 – First Aid Measures

Eyes: Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation continues.

Skin: No health risks are associated with skin contact at room temperature. Wash off with soap and plenty of water.

Inhalation: If dust from the material is inhaled, remove to fresh air.

Ingestion: Rinse mouth with water. Seek medical attention.

5 – Firefighting Measures

Conditions of flammability:

Not flammable or combustible. Material will not burn under normal conditions.

Suitable extinguishing media:

Use water spray, dry chemical or carbon dioxide. Material will not burn under normal conditions, so use media appropriate to surrounding materials.

Special protective equipment for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products:

Possible hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides, hydrogen cyanide, hydrogen iodide.

Explosion data – sensitivity to mechanical impact:

No data available.

Explosion data – sensitivity to static discharge:

No data available.

6 – Accidental Release Measures

Personal precautions:

Avoid dust formation. Avoid breathing vapours, mist and aerosols.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment:

Vacuum or sweep up and shovel. Keep in suitable, closed containers for disposal.

7 – Handling and Storage

Precautions for safe handling:

Personal hygiene such as washing the hands and face immediately after working with this material and before eating is recommended.

Dust may form explosive mixtures with air. Avoid dust formation and control ignition sources. Dust particles suspended in air are combustible and may be explosive. Keep away from heat, sparks, flame, and other ignition sources. Prevent dust accumulations and dust clouds. Employ ground, bonding, venting, and explosive relief provisions in accordance with accepted engineering practices and NFPA provisions in any process capable of generating dust and/or static electricity. Explosion hazards apply only to dusts, not granular forms of this product.

The handling of powder in both loading and unloading operations, as well as fabrication, may cause dust to be formed and necessary precautions for personal protection should be used. As with all finely divided materials precautions should be taken to avoid inhalation and eye contact.

If in dust form, transfer from storage with a minimum amount of dusting. Ground all transfer, blending, and dust collecting equipment to prevent static sparks in accordance with NFPA 70 “National Electric Code.” Review and comply with all relevant NFPA provisions, including but not limited to NFPA 484 and NFPA 654 related to combustible dust hazards. Remove all ignition sources from material handling, transfer, and processing areas where dust may be present. Local exhaust ventilation should be provided in work area.

Precautions for safe storage:

Keep containers tightly closed and store in a dry, ventilated space.

8 – Exposure Control/Personal Protection

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
Particulates	10 mg/m ³	15 mg/m ³ – Total 5 mg/m ³ - Respirable	Not Determined

Personal protective equipment:

Engineering Measures:

Provide local exhaust ventilation to keep airborne particulate concentrations below 15 mg/m³, the OSHA limit for nuisance dusts.

Personal Protective Equipment: Eyes/Face

Safety glasses with side shields.

Personal Protective Equipment: Skin

Protective clothing such as gloves, and long sleeves or laboratory coat should be worn.

Personal Protective Equipment: Respiratory

If levels are above published OELs, then a NIOSH approved respirator.

Good industrial hygiene practice should be followed which includes preventing eye contact, minimizing skin contact and minimizing inhalation of dust, vapors or mist.

9 – Physical and Chemical Properties

Appearance and Odor	Brown powder with slight odor
Odor Threshold	No Information Available
Specific Gravity (Relative Density)	1.25-1.35
Solubility in Water	Insoluble
VOC Content (%)	<1
pH	No data available
Melting Point/Freezing Point	Infusible
Vapor Pressure	No data available
Vapor Density	No data available
Evaporation Rate	No data available
Boiling Point	No data available
Flammability	Non-combustible
Flash Point	No data available
Explosion Data	LEL – No data available
UEL – No data available	
Auto ignition Point	No data available
Partition Coefficient: n-octanol/water	No data available
Decomposition Temperature	> 572° F
Viscosity	No data available

10 – Stability and Reactivity

Reactivity: None.

Chemical stability: Stable under recommended storage conditions. Not susceptible to hazardous polymerization.

Conditions to avoid: Heating to temperatures above 572° F.

Materials to avoid: Strong oxidizing agents.

Hazardous decomposition products: Possible Hazardous decomposition products formed under fire conditions include carbon oxides, nitrogen oxides (NO_x), sulfur oxides (SO_x).

11 – Toxicological Information

Signs and Symptoms of Overexposure: Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Skin irritation signs and symptoms may include a burning sensation, redness and swelling. Respiratory irritation signs and symptoms

may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing.

Aggravated Medical: None.

Acute Effects: Non-toxic.

Skin Corrosion/Irritation: Not irritating to the skin.

Serious Eye Damage/Irritation: Particulates can be mechanically irritating to the eyes.

Ingestion: None.

Inhalation: Inhalation of particulates may produce respiratory tract irritation.

Respiratory or Skin Sensitization: Not expected to be a sensitizer.

Chronic Effects:

Germ Cell Mutagenicity: Not expected to be a germ cell mutagen.

Carcinogenicity: Not classifiable as carcinogen to humans (group 3 IARC).

Reproductive Toxicity: There aren't known reproductive toxicity effects.

STOT-single Exposure: At dust form, may cause respiratory irritation with cough and sneezing.

STOT –multiple Exposure: There aren't known repeated exposure effects.

Aspiration Hazard: No data available. Not expected to be an aspiration hazard.

Primary Route of Entry: Inhalation of particulates.

12 – Ecological Information

Ecotoxicity:

No data available.

Persistence and degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other Adverse Effects:

No data available.

13 – Disposal Considerations

Dispose of in accordance with federal, state and local regulations.

14 – Transport Information

US Department of Transportation Classification (49CFR)

Not classified as hazardous for transport.

15 – Regulatory Information

SARA Section 302 & 304:

No chemicals

SARA Section 313:

No chemicals

TSCA: This product is presently not listed on the TSCA inventory and should be used for research and development purposes only as specified in 40 C.F.R. § 720.36.

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