



Safety Data Sheet – according to Directive 2001/58/EC

1 – Product and company identification

Product name	PEMULEN* TR-2 Polymeric emuls.		
Product number	PEMTR2	Effective date	06/18/2004
Company USA address	Noveon, Inc. 9911 Brecksville Road Cleveland, Ohio 44141-3247 United States	Company Europe address	Noveon Europe B.V.B.A. Chaussée de Wavre 1945 1160 Brussels Belgium
Telephone Chemtrec (24 Hour)	(216) 447-5000 (800) 424-9300	Telephone Chemtrec (Int'l)	32-2-678-1911 1-703-527-3887
Company Hong Kong address	Noveon Asia Pacific Limited 1107-1110 Shui On Centre 6-8 Harbour Road Wan Chai, Hong Kong		
Telephone	852-2508-1021		

2 - Composition / information on ingredients

<u>CAS-No.</u>	<u>Name according to EEC</u>	<u>%</u>	<u>Symbols</u>	<u>R-Phrases</u>
Proprietary	Polymer/solids	100		

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

Notes: No Additional Information

3 - Hazards identification

Acute health effects

Powder/dust eye irritation is a physical, not a chemical effect. Solid particles on the eye (powder/dust) may cause pain and be accompanied by irritation. Dust inhalation may cause coughing, mucous production and shortness of breath.

Chronic health effects

Contact dermatitis may occur in individuals under extreme conditions of prolonged and repeated contact, high exposure and temperature, and occlusion (held onto the skin) by clothing. No evidence of adverse lung effects from polyacrylate dust exposure was observed in studies of workers. Neither lower airway symptoms, chronic parenchymal disease, radiographic changes, nor clinically important effects on lung function were found to result from polyacrylate exposure. Only a small increase in upper respiratory symptoms appeared to be related to exposure. However, various lung effects such as inflammation, hyperplasia (abnormal increases in the number of cells composing a tissue or organ), scarring (fibrosis), changes in the air sac (alveolar) ducts of the lung, and tumors were noted in laboratory studies with rodents inhaling concentrations of a water absorbent sodium polyacrylate dust greater than 0.05 mg/m³ for the majority of their lives. Furthermore, some lung or lung cell effects were found in rodent laboratory studies of shorter duration.

Signs/symptoms of exposure

Irritation

4 - First aid measures

If irritation or other symptoms (as noted above) occur or persist from any route of exposure, remove the affected individual from the area: see a physician/get medical attention.

Eye contact

Immediately flush eyes with plenty of one percent (1%) physiological saline for five minutes while holding eyelids open; see a physician. If no saline is easily available, flush eyes with plenty of clean water for 15 minutes; see a physician. Water (moisture) swells this product into a gelatinous film and, when in contact with the eye, may be difficult to remove using only water.

Skin contact

Wash the affected area thoroughly with plenty of water and soap.

Inhalation

If any processing vapors, decomposition products or particulates are inhaled, remove individual(s) to fresh air. Provide protection before allowing reentry.

Ingestion

No ingestion effects known. Treat symptomatically.

5 - Fire fighting measures**Fire and explosive properties**

This product has a high volume resistivity and a propensity to build up static electricity which may be discharged as a spark. A spark can be an ignition source for solvent vapor/air mixtures. If you add this product to a solvent, ensure appropriate safe handling practices such as provision for inerting flammable vapors and measures such as those cited above. As with all organic dusts, fine particles suspended in air in critical proportions and in the presence of an ignition source may ignite and/or explode. Dust may be sensitive to ignition by electrostatic discharge, electrical arcs, sparks, welding torches, cigarettes, open flame, or other significant heat sources. As a precaution, implement standard safety measures for handling finely divided organic powders. See Section 7 for suggested measures. Typical results expected for this family of products:

Minimum explosive concentration: 0.080 oz/ft³ (80 g/m³)

Minimum ignition energy: 0.20 joules (dispersed dust cloud)

Deflagration Index, Kst 275 bar m/sec

Maximum rate of pressure rise: 786 bar/s @ 500 g/m³

(11,400 psi/sec @ 0.5 oz/ft³)

Maximum pressure of explosion: 6 bar @ 500 g/m³

(87 psi @ 0.5 oz/ft³)

Volume resistivity: >3.68x10⁺¹⁵ ohm-cm

Explosion severity: >5 (Severe)

National Electrical Code (NFPA 70): Group G dust

Ignition temperature of dust cloud: Not determined

Extinguishing media

Use water spray, dry chemical, or foam. Carbon dioxide may be ineffective on larger fires due to a lack of cooling capacity which may result in reignition.

Fire fighting instructions

Avoid hose streams or any method which will create dust clouds. Wear self-contained breathing apparatus (SCBA) equipped with a full facepiece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to

prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations.

Unusual fire/explosion hazards

No Information

6 - Accidental release measures

Containment techniques

Using care to avoid dust generation, vacuum or sweep into a closed container for reuse or disposal. Do not sweep or flush spilled product into public sewer, streams or other water systems.

Clean-up techniques

If inhalation of dust cannot be avoided, wear a particulate respirator approved by NIOSH/MSHA. CAUTION: Contact with water creates a slippery film. If this occurs, the film can be cleaned-up with detergent solution.

Evacuation instructions

Not Applicable

7 - Handling and storage

Handling

Do not get in eyes. Do not ingest, taste, or swallow. Avoid repeated or prolonged skin contact. Avoid routine inhalation of dust of any kind. Exercise care when emptying containers, sweeping, mixing or doing other tasks which can create dust. Bond, ground and properly vent conveyors, dust control devices and other transfer equipment. Eliminate ignition sources (e.g., sparks, static buildup, excessive heat, etc.). Although the risk of a dust explosion is low, as a precaution, implement the following safety measures:

Prohibit flow of polymer, powder or dust through non-conductive ducts, vacuum hoses or pipes, etc.; only use grounded, electrically conductive transfer lines when pneumatically conveying product. Prevent accumulation of dust (e.g., well-ventilated conditions, promptly vacuuming spills, cleaning overhead horizontal surfaces, etc.). Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Use under well-ventilated conditions.

Storage

Store in dry area. Keep container closed when not in use.

8 - Exposure controls / personal protection

Chemical Name

Polymer/solids

MAK Value

N/E

MEL / OES

N/E

Notes: Noveon recommends an 8-hour TWA exposure limit of 0.05 mg/m³ for the polymer in this product.

Engineering controls

Always provide effective general and, when necessary, local exhaust ventilation to draw dust away from workers to prevent routine inhalation. Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. Ventilation guidelines/techniques may be found in publications such as Industrial Ventilation: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH, 45240-1634, USA.

Eye/face protection

Eye protection (e.g., goggles) suitable for keeping dust out of the eyes.

Skin protection

Wear protective gloves.

Respiratory protection

If respirable dust exposures exceed 0.05 mg/m³ (8-hour TWA), wear a NIOSH-approved respirator equipped with high efficiency particulate (HEPA) filters. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

General protection

No Additional Information

9 - Physical and Chemical Properties

Form	Powder	pH	~ (@ 1% in H ₂ O) 2.5 - 3.0
Appearance	White	% Volatile by weight	(moisture) < 2.0 %
Odor	Slight acetic	Specific gravity	~ 1.40
Solubility in water	Appreciable	VOC	Not Available
Evaporation rate	Non-volatile	Flash point	Not Applicable
Vapour pressure	Not Applicable	Boiling Point °F Boiling Point °C	Not Applicable Not Applicable
Partition coefficient	Not Applicable		
Vapour density	Non-volatile	Explosive range	LEL See fire and expl. properties UEL for more information
Viscosity	Not Available	Autoignition temperature	~ 1774.4 F (968.0 C)
Melting point	Not available		

Notes: No Additional Information

10 - Stability and reactivity

Conditions to avoid

No Information

Incompatibility with other materials

Heat may be generated if polymer comes in contact with strong basic materials such as ammonia, sodium hydroxide, potassium hydroxide or strongly basic amines. Precautions beyond those described herein, such as chemical splash goggles or protective clothing, must be considered as the need exists.

Hazardous decomposition products

Carbon dioxide, Carbon monoxide, Hydrocarbons, Irritating vapors

Additional reactivity / stability information

None

Thermal processing emissions

Not Applicable

11 - Toxicological information

Caution must be exercised through the prudent use of protective equipment and handling procedures to minimize exposure.

Chemical Name Polymer/solids	LC50 Inhalation N/E	Species	LD50 Oral 2500 mg/kg	Species Rabbit/ adult	LD50 Skin >300 mg/kg	Species Rabbit/ adult
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Chemical Name Polymer/solids	LC50 Inhalation N/E	Species	LD50 Oral N/E	Species	LD50 Skin N/E	Species
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Note: These results are typical for this family of polymers.

96 Hour static acute toxicity: Daphnia Magna, LC50 168-280 mg/L

Acrylic polymer

96 Hour static acute toxicity: Bluegill, Sunfish, LC50 580-2000 mg/L

Skin: No evidence of irritation or sensitization during human patch testing. Chronic oral toxicity: No significant effects in rats or dogs fed with resin as 5% of diet for 6-1/2 months.

12 - Ecological information

Crosslinked polyacrylic acid polymers in this product are not biodegradable; do not inhibit waste treatment bacteria; and do not pass through typical wastewater treatment to the environment, but are instead removed with the biomass.

13 - Disposal information

In appropriate dust/air ratio, dust cloud in air has explosion potential. Therefore, land disposal must be in closed containers. If disposal is in bulk form, recognize that this polymer absorbs moisture resulting in a gelatinous mass that is unable to support human weight. Incinerate or landfill waste in a properly permitted facility in accordance with federal, state and local regulations.

14 - Transportation information

UN/NA Number:	N/A	Hazard Class:	N/A	IMDG Class:	N/A
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Packing Group:	N/A	ICAO/IATA Class:	N/A	TDG Class:	N/A
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ADR/RID Class:	N/A
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Name of Material: Not regulated

15 - Regulatory information

EU Classification:

This material is not subject to classification according to European Union Directives 67/548 and its amendments including 92/32/EEC, 1999/45/EC, and 2001/58/EC.

EU R phrases:

Not Applicable

EU S phrases:

Not Applicable

(EINECS / ELINCS):

Compliant

Water hazard classification (Germany):

Not assessed

U.S. Toxic Substances Control Act (TSCA):

All components of this product are either listed on the U.S. Toxic Substances Control Act (TSCA) inventory of chemicals or are otherwise compliant with TSCA regulations.

Canadian Domestic Substance List (DSL):

All components in this product are on the Canadian Domestic Substances List (DSL) or are exempt from listing.

16 - Other Information

Product description: Acrylic polymer for emulsification.

Legend:

* :	Trademark of Noveon IP Holdings Corp.
CAS No:	Chemical Abstract Service Registry Number
COSHH:	Control of Substances Hazardous to Health (United Kingdom)
IARC:	International Agency for Research on Cancer
MAK:	Maximale Arbeitsplatz-Konzentration (Maximum Workplace Concentration) (Germany)
MEL:	Maximum Exposure Limit (COSHH)
N/A:	Not Applicable
N/E:	None Established
OES:	Occupational Exposure Standard (COSHH)
S:	Can be absorbed through the skin
STEL:	Short Term Exposure Limit (COSHH)
TWA:	Time Weighted Average (exposure for 8-hour workday)
IIIA1:	Substances shown to induce malignant tumors in humans
IIIA2:	Substances shown to be clearly carcinogenic only in animal studies but under conditions indicative of carcinogenic potential at the workplace
IIIB:	Substances which are suspected of possessing significant carcinogenic potential which urgently needs further clarification

Users Responsibility/Disclaimer of Liability

The information set forth herein is based on our current knowledge, and is intended to describe the product solely with respect to health, safety and the environment. As such, it must not be interpreted as a guarantee of any specific property of the product. As a result, the customer shall be solely responsible for deciding whether said information is suitable and beneficial.

Safety Data Sheet Preparer:

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