

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Poly-Quat

**Other means of identification**

**Product No.:** 7603

**Recommended use and restriction on use**

**Recommended use:** For industrial use only.

**Restrictions on use:** For drug manufacturing or R&D use only. Not on TSCA Inventory. Excluded from TSCA or exempt from premanufacture notice.

**Details of the supplier of the safety data sheet**

	Avantor Performance Materials, LLC 100 Matsonford Rd, Suite 200 Radnor, PA 19087
Telephone:	Customer Service: 855-282-6867
Fax:	
Contact Person:	Product Information Compliance
E-mail:	info@avantormaterials.com

**Emergency telephone number:**

CHEMTREC: 1-800-424-9300 within US and Canada (24 hrs/day, 7 days/week)

## 2. Hazard identification

**Hazard Classification**

Not classified

**Label Elements**

<b>Hazard Symbol:</b>	No symbol
<b>Signal Word:</b>	No signal word.
<b>Hazard Statement:</b>	Not applicable
<b>Precautionary Statements</b>	Not applicable

**Other hazards which do not result in GHS classification:**

None.

## 3. Composition/information on ingredients

## Substances

Chemical name	Common name and synonyms	CAS number	Content in percent (%)*
Acetic acid	Ethanoic acid	64-19-7	1 - 2%
Ethanol	Ethyl alcohol	64-17-5	0,1 - 0,9%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

<b>General information:</b>	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
<b>Ingestion:</b>	Drink a few glasses of water or milk. Get medical attention if symptoms occur.
<b>Inhalation:</b>	Move to fresh air. Get medical attention if symptoms occur.
<b>Skin Contact:</b>	Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance.

### Most important symptoms/effects, acute and delayed

**Symptoms:** May cause irritation to skin, eyes and respiratory tract.

**Hazards:** None known.

### Indication of immediate medical attention and special treatment needed

**Treatment:** Treat symptomatically. Symptoms may be delayed.

## 5. Fire-fighting measures

**General Fire Hazards:** The product is non-combustible.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Not applicable

**Specific hazards arising from the chemical:** None known.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** Move containers from fire area if you can do so without risk.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures:</b>	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
<b>Methods and material for containment and cleaning up:</b>	Eliminate sources of ignition. Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination.
<b>Notification Procedures:</b>	Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.
<b>Environmental Precautions:</b>	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

<b>Precautions for safe handling:</b>	Avoid generation and spreading of dust. Avoid inhalation of dust. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Wash hands thoroughly after handling. See Section 8 of the SDS for Personal Protective Equipment.
<b>Conditions for safe storage, including any incompatibilities:</b>	Store away from incompatible materials.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Acetic acid	STEL	15 ppm    37 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
	TWA	10 ppm    25 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Acetic acid	STEL	15 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Acetic acid	TWA	10 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
	STEL	15 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Acetic acid	STEL	15 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	TWA	10 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Acetic acid	8 HR ACL	10 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	15 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Acetic acid	TWA	10 ppm    25 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	STEL	15 ppm    37 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Acetic acid	TWA	10 ppm	US. ACGIH Threshold Limit Values (2011)
	STEL	15 ppm	US. ACGIH Threshold Limit Values (2011)

Ethanol	TWA	1.000 ppm 1.880 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Ethanol	STEL	1.000 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethanol	STEL	1.000 ppm	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2011)
Ethanol	STEL	1.000 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Ethanol	8 HR ACL	1.000 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	1.250 ppm	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Ethanol	TWA	1.000 ppm 1.880 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Ethanol	STEL	1.000 ppm	US. ACGIH Threshold Limit Values (2011)

**Appropriate Engineering Controls** No data available.

#### Individual protection measures, such as personal protective equipment

**General information:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

#### Skin Protection

**Hand Protection:** Wear protective gloves.

**Other:** Wear suitable protective clothing.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Hygiene measures:** Provide eyewash station and safety shower. Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash contaminated clothing before reuse.

## 9. Physical and chemical properties

### Appearance

**Physical state:** Solid  
**Form:** Beads  
**Color:** Off-white

**Odor:** Odorless

**Odor threshold:** No data available.

**pH:** No data available.

**Melting point/freezing point:** estimated 1.710 °C

**Initial boiling point and boiling range:** estimated 2.230 °C

<b>Flash Point:</b>	Not applicable
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	estimated 2,65 g/ml (20 °C)
<b>Relative density:</b>	estimated 2,65 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Excessive heat. Moisture. Contact with incompatible materials.
<b>Incompatible Materials:</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition may release oxides of carbon.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	May cause irritation to the respiratory system.
<b>Skin Contact:</b>	Prolonged skin contact may cause temporary irritation.
<b>Eye contact:</b>	May cause temporary eye irritation.
<b>Ingestion:</b>	May cause irritation of the gastrointestinal tract.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	LD 50 (Rat): > 22.500 mg/kg

#### Dermal

**Product:** ATEmix (Rabbit): 50.488,93 mg/kg

**Inhalation Product:** ATEmix (Rat): 511,45 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** Prolonged skin contact may cause temporary irritation.

**Serious Eye Damage/Eye Irritation**

**Product:** May cause temporary eye irritation.

**Respiratory or Skin Sensitization**

**Product:** Not a skin nor a respiratory sensitizer.

**Carcinogenicity**

**Product:** This substance has no evidence of carcinogenic properties.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**ACGIH Carcinogen List:**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No mutagenic components identified

**In vivo**

**Product:** No mutagenic components identified

**Reproductive toxicity**

**Product:** No components toxic to reproduction

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** Not classified

**Other effects:** None known.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Acetic acid  
NOAEL (Oncorhynchus mykiss, 96 h): 300 - 1.000 mg/l  
NOAEL (Cyprinodon variegatus, 96 h): 300 - 1.000 mg/l  
LC 50 (Cyprinodon variegatus, 96 h): 300,82 mg/l  
LC 50 (Oncorhynchus mykiss, 96 h): 31,3 - 108 mg/l  
LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 251 mg/l

Ethanol  
LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 11.850 - 20.100 mg/l  
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 13.480 - 29.400 mg/l  
LC 50 (Carp (Leuciscus idus melanotus), 48 h): 8.140 mg/l  
EC 50 (Fathead minnow (Pimephales promelas); Rainbow trout (Oncorhynchus mykiss), 96 h): 12.900 - 28.900 mg/l  
EC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 13.000 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Acetic acid  
EC 50 (Pond snail (Lymnaea emarginata angulata), 48 h): 320 mg/l  
EC 50 (Liver elimia, river snail (Elimia livescens), 48 h): 460 mg/l  
EC 50 (Water flea (Daphnia magna), 48 h): 19 - 80 mg/l  
LC 50 (Common shrimp, sand shrimp (Crangon crangon), 48 h): 100 - 330 mg/l  
LC 50 (Acartia tonsa, 48 h): 4.966 mg/l

Ethanol  
EC 50 (Water flea (Daphnia obtusa), 48 h): 10.100 - 22.200 mg/l  
LC 50 (Water flea (Daphnia magna), 48 h): 7.560 - 15.386 mg/l  
LC 50 (Ceriodaphnia dubia, 48 h): 5.012 mg/l  
EC 50 (Water flea (Daphnia magna), 48 h): > 10.000 mg/l

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Acetic acid  
LC 50 (Oncorhynchus mykiss, 21 d): 52 - 87 mg/l  
NOAEL (Oncorhynchus mykiss, 21 d): 34,3 - 57,2 mg/l

Ethanol  
EC 50 (Oryzias latipes, 200 h): 9.164 - 14.536 mg/l  
NOAEL (Oryzias latipes, 200 h): 7.900 - 15.800 mg/l  
LOAEL (Oryzias latipes, 200 h): 7.900 - 39.505 mg/l

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Acetic acid  
NOAEL (Daphnia magna, 21 d): 22,7 - 80 mg/l

Ethanol  
NOAEL (Daphnia magna, 21 d): > 10 mg/l  
LOAEL (Biomphalaria tenagophila, 8 Weeks): 19,8 mg/l  
NOAEL (Ceriodaphnia dubia, 10 d): 2 - 9,6 mg/l  
NOAEL (Biomphalaria tenagophila, 8 Weeks): 19,8 mg/l  
LC 50 (Ceriodaphnia dubia, 10 d): 1.806 mg/l

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Specified substance(s):**

Acetic acid Log Kow: -0,17

Ethanol Log Kow: -0,31

**Mobility in soil:** No data available.

**Other adverse effects:** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**13. Disposal considerations**

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

**Contaminated Packaging:** Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. Transport information**

**TDG**

Not regulated.

**IMDG**

Not regulated.

**IATA**

Not regulated.

**Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable

**15. Regulatory information**

**Canada Federal Regulations**

**List of Toxic Substances (CEPA, Schedule 1)**

Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**

Not Regulated



**National Pollutant Release Inventory (NPRI)**

**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5                      Ethanol

**Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)**

NPRI                              Not Regulated

**Greenhouse Gases**

Not Regulated

**Controlled Drugs and Substances Act**

CA CDSI                        Not Regulated

CA CDSII                      Not Regulated

CA CDSIII                     Not Regulated

CA CDSIV                     Not Regulated

CA CDSV                      Not Regulated

CA CDSVII                    Not Regulated

CA CDSVIII                 Not Regulated

**Precursor Control Regulations**

Not Regulated

**International regulations**

**Montreal protocol**

Not applicable

**Stockholm convention**

Not applicable

**Rotterdam convention**

Not applicable

**Kyoto protocol**

Not applicable

**Inventory Status:**

Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.
US TSCA Inventory:	For drug manufacturing or R&D use only. Not on TSCA Inventory. Excluded from TSCA or exempt from premanufacture notice.
EINECS, ELINCS or NLP:	Not in compliance with the inventory.

<b>16. Other information</b>
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**Revision Date:** 04.05.2020

**Version #:** 1.4

**Source of information:** Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, information from the Toxicology Data Network (TOXNET), European Chemical Agency (ECHA) substance dossiers, IARC Monographs, US National Toxicology Program data, the Agency for Toxic Substances and Disease Registry, other manufacturer's SDSs and other sources, as appropriate.

**Further Information:** No data available.

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