

3V SIGMA S.p.A. - Via T.Tasso 58, 24100 Bergamo - Italia

Trade name: POLYGEL CA

1.00 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.01 Identification of the substance or preparation:

Polyacrylic acid

Use: Additive for chemicals (thickener)

1.02 Company identification:

3V SIGMA S.p.A.

Via T. Tasso, 58 - 24121 Bergamo - Italy

E-mail address: product.safety@3vsigma.com

Telephone: +39 035 4165111 - Telefax: +39 035 239569

Emergency telephone number: +39 035 4165.111/.400/.500

2.00 HAZARD IDENTIFICATION

Due to dust formation, for prolonged exposure the product may result irritating to skin, eyes, mucous membranes and respiratory system.

3.00 COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous substances contained (see directive 2001/58/EEC): na

4.00 FIRST AID MEASURES

4.01 General recommendations: If anyone has symptoms apparently due to the contact with the product, seek medical advice.

4.02 Inhalation : Fresh air.

4.03 Skin contact : Remove contaminated clothing.

4.04 Eye contact : Wash with plenty of water and soap.

4.05 Ingestion : Flush with plenty of physiological saline or rinse abundantly under flowing water with eyelids held open.

4.06 Other : Wash out mouth with water. Never give anything by mouth to an unconscious person.

5.00 FIRE-FIGHTING MEASURES

5.01 Suitable extinguishing media: Water spray, foam, dry chemicals, CO2 (may not be suitable in large fires).

5.02 Inappropriate extinguishing media: High pressure water stream

5.03 Special exposure hazards arising from the substance itself, combustion products, resulting gases: On burning carbon oxides and hydrocarbons can be evolved.

5.04 Special protective equipment: Suitable breathing apparatus and protective clothing.

5.05 Other precautions:

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6.00 ACCIDENTAL RELEASE MEASURES

- 6.01 Personal precautions: see 8.3. Avoid dust formation. Formation of slippery film with water.
- 6.02 Environmental precautions: Do not empty into drains or watercourses.
- 6.03 Cleaning methods: Collect in a suitable container avoiding dust formation. Do not wash with water to prevent slippery film formation. If necessary use salt water or detergent solution.
- 6.04 Additional information:

7.00 HANDLING AND STORAGE

- 7.01 Handling
 - 1. Precautions for safe handling: Ensure a good ventilation of the working area and exhaustion in case of dust formation.
 - 2. Protection against fire and explosion: Product is combustible and can form an explosive dust/air mixture. Avoid dust formation. Keep away from sources of ignition. Take precautionary measures against static discharges.
- 7.02 Storage
 - 1. Requirements for rooms and containers: Store in closed containers in a cool place.
 - 2. Incompatible materials: Reaction with alkalis develops heat of neutralization.
 - 3. Storage conditions: Usual for chemical products.
 - 4. Additional information: Hygroscopic product. Protect from moisture.

8.00 EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.01 Technical measures: see 7.
- 8.02 Limit values: TLV not established.
- 8.03 Personal protection
 - 1. General protective measures: Do not breathe dust. Avoid contact with eyes, skin and mucous membranes. Note: Information reported below is indicative only. Protective measures to be applied must be evaluated on the basis of actual working conditions, e.g. working temperatures, concentrations, operation types, environmental analysis, etc.
 - 2. Respiratory protection: Half-mask with filter type A,B,P (EN 141)
 - 3. Hand protection : Gloves resistant to chemicals, suitable also for direct and prolonged contact, permeation time > 480 minutes (EN 374-EN 388), e.g. 1.30 mm PVC or 0.75 mm neoprene.
 - 4. Eye protection : Chemical safety goggles (EN 166)
 - 5. Body protection : Long-sleeve disposable working clothes

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6. Other (e.g. Tyvec®, 3rd cat. types 5 and 6)
: Eyewash bottle (EN 368), safety footwear (EN 345)

9.00 PHYSICAL AND CHEMICAL PROPERTIES

9.01 Appearance

1. Form : Powder
2. Colour: White
3. Odour : Slightly acetic

9.02 Relevant data for safety

1. Change in physical state
 - Boiling point : n.a. °C
 - Melting point (decomposes) : approx. 250 °C
2. Flash point : n.a. °C
3. Flammability (solid, gas) : n.a.
4. Ignition temperature : approx. 500 °C
5. Autoflammability : n.a.
6. Oxidizing properties : n.a.
7. Explosive properties : n.d.
8. Explosion limits - Lower : approx. 170 mg/l
9. Vapour pressure (20 °C) : n.a. mbar
10. Density (20 °C) : n.a. g/cm³
 - Bulk density : approx. 0.20 g/cm³
11. Solubility in water (20 °C) : Gel formation g/l
12. pH (0.5% in H₂O) (20 °C) : approx. 3
13. Partition coefficient n-octanol/water (log POW, 20 °C) : n.d.
14. Viscosity (20 °C) : n.a. mPa.s

9.03 Other data

10.00 STABILITY AND REACTIVITY

- 10.01 Conditions to avoid (thermal decomposition):
None with proper storage and handling.
- 10.02 Materials to avoid (hazardous reactions): see 7.2.2.
- 10.03 Hazardous decomposition products:
None with proper storage and handling.
- 10.04 Other information:

11.00 TOXICOLOGICAL INFORMATION

- LD50 (oral, rat) > 2000 mg/kg (estimated)
- Skin irritation (rabbit): non-irritant
- Eye irritation (rabbit): non-irritant
- Skin sensitization (guinea-pig): negative
- Product not tested; above statements based on data for similar compounds.
- IARC polyacrylic acid: group 3 carcinogen (not classifiable, insufficient data)

EC SAFETY DATA SHEET

17.09.2007 04/04

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12.00 ECOLOGICAL INFORMATION

Utilize according to good manufacturing practice and avoid to empty into the environment. Scarcely biodegradable product.

13.00 DISPOSAL CONSIDERATIONS

13.01 Product: Dispose according to laws (e.g. incineration in authorized plant).

13.02 Contaminated packaging: Recycling after cleaning (see 6.3).

14.00 TRANSPORT INFORMATION

14.01 General information

Product not classified as dangerous for transport.

14.02 Road transport

ADR/RID: Class

14.03 Sea transport

IMDG/IMO: Class

14.04 Air transport

ICAO/IATA: Class

14.05 Other

15.00 REGULATORY INFORMATION

15.01 EC Labelling: Not required

15.02 Other regulations:

16.00 OTHER INFORMATION

n.a. = not applicable; n.d. = not determined

Main changes: 16

The statements made herein are based on our best present experience and are intended to describe product safety requirements. They should not therefore be considered as a warranty of specific properties.