

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

**Trade name or designation of the mixture** Purolite® IP1

**Registration number** -

**Synonyms** None.

**Issue date** 23-August-2017

**Version number** 02

**Revision date** 06-February-2020

**Supersedes date** 23-August-2017

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses** Ion Exchange, Absorbent and/or Catalyst

**Uses advised against** None known.

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

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

**Hazard summary** Health injuries are not known or expected under normal use.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Hazard pictograms** None.  
**Signal word** None.  
**Hazard statements** The mixture does not meet the criteria for classification.

#### Precautionary statements

**Prevention** Observe good industrial hygiene practices.  
**Response** Wash hands after handling.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Supplemental label information** None.

**2.3. Other hazards** This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General information

| Chemical name          | %  | CAS-No. / EC No.       | REACH Registration No. | Index No. | Notes |
|------------------------|----|------------------------|------------------------|-----------|-------|
| Polyethylene           | 98 | 9002-88-4              | -                      | -         |       |
| <b>Classification:</b> | -  |                        |                        |           |       |
| Water                  | 2  | 7732-18-5<br>231-791-2 | -                      | -         |       |
| <b>Classification:</b> | -  |                        |                        |           |       |

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

## SECTION 4: First aid measures

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.  
**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.  
**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.  
**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

**4.2. Most important symptoms and effects, both acute and delayed** Exposure may cause temporary irritation, redness, or discomfort.

**4.3. Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

## SECTION 5: Firefighting measures

**General fire hazards** This product is not flammable.  
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

### 5.1. Extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).  
**Unsuitable extinguishing media** None known.

|                                                                   |                                                                                               |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>5.2. Special hazards arising from the substance or mixture</b> | During fire, gases hazardous to health may be formed.                                         |
| <b>5.3. Advice for firefighters</b>                               |                                                                                               |
| <b>Special protective equipment for firefighters</b>              | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Special fire fighting procedures</b>                           | Use water spray to cool unopened containers.                                                  |
| <b>Specific methods</b>                                           | Use standard firefighting procedures and consider the hazards of other involved materials.    |

## SECTION 6: Accidental release measures

|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>6.1. Personal precautions, protective equipment and emergency procedures</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>For non-emergency personnel</b>                                              | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.                                                                                                                                                                                                  |
| <b>For emergency responders</b>                                                 | Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>6.2. Environmental precautions</b>                                           | Avoid discharge into drains, water courses or onto the ground.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>6.3. Methods and material for containment and cleaning up</b>                | Large Spills: Dike the spilled material, where this is possible. Sweep up or vacuum up spillage and collect in suitable container for disposal. Following product recovery, flush area with water.<br><br>Small Spills: Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.<br>For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS. |
| <b>6.4. Reference to other sections</b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## SECTION 7: Handling and storage

|                                                                          |                                                                                                                 |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>7.1. Precautions for safe handling</b>                                | Observe good industrial hygiene practices.                                                                      |
| <b>7.2. Conditions for safe storage, including any incompatibilities</b> | Store in original tightly closed container. Store away from incompatible materials (see section 10 of the SDS). |
| <b>7.3. Specific end use(s)</b>                                          | Ion Exchange, Absorbent and/or Catalyst                                                                         |

## SECTION 8: Exposure controls/personal protection

|                                                                              |                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>8.1. Control parameters</b>                                               |                                                                                                                                                                                                                                                                                                                                                           |
| <b>Occupational exposure limits</b>                                          | No exposure limits noted for ingredient(s).                                                                                                                                                                                                                                                                                                               |
| <b>Biological limit values</b>                                               | No biological exposure limits noted for the ingredient(s).                                                                                                                                                                                                                                                                                                |
| <b>Recommended monitoring procedures</b>                                     | Follow standard monitoring procedures.                                                                                                                                                                                                                                                                                                                    |
| <b>Derived no effect levels (DNELs)</b>                                      | Not available.                                                                                                                                                                                                                                                                                                                                            |
| <b>Predicted no effect concentrations (PNECs)</b>                            | Not available.                                                                                                                                                                                                                                                                                                                                            |
| <b>8.2. Exposure controls</b>                                                |                                                                                                                                                                                                                                                                                                                                                           |
| <b>Appropriate engineering controls</b>                                      | Good general ventilation 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. |
| <b>Individual protection measures, such as personal protective equipment</b> |                                                                                                                                                                                                                                                                                                                                                           |
| <b>General information</b>                                                   | Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.                                                                                                                                                    |
| <b>Eye/face protection</b>                                                   | If contact is likely, safety glasses with side shields are recommended. Eye protection should meet standard EN 166.                                                                                                                                                                                                                                       |
| <b>Skin protection</b>                                                       |                                                                                                                                                                                                                                                                                                                                                           |
| <b>- Hand protection</b>                                                     | Protective gloves should be worn to prevent skin contact.<br>SPECIFIC RECOMMENDATIONS.<br>Breakthrough time: > 10 min (EN 374-3 Class 1).<br>Suitable gloves can be recommended by the glove supplier.                                                                                                                                                    |
| <b>- Other</b>                                                               | Wear suitable protective clothing.                                                                                                                                                                                                                                                                                                                        |
| <b>Respiratory protection</b>                                                | In case of insufficient ventilation, wear suitable respiratory equipment.                                                                                                                                                                                                                                                                                 |

|                                        |                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Thermal hazards</b>                 | Wear appropriate thermal protective clothing, when necessary.                                                                                                                                                                                                                                        |
| <b>Hygiene measures</b>                | 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.                                                                                |
| <b>Environmental exposure controls</b> | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels. |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

|                       |                            |
|-----------------------|----------------------------|
| <b>Physical state</b> | Solid.                     |
| <b>Form</b>           | Beads.                     |
| <b>Colour</b>         | Clear. Translucent. White. |

**Odour** Odourless.

**Odour threshold** Not available.

**pH** Neutral.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not applicable.

**Flash point** Not applicable.

**Evaporation rate** Not applicable.

**Flammability (solid, gas)** Non flammable.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not applicable.

**Flammability limit - upper (%)** Not applicable.

**Vapour pressure** Not applicable.

**Vapour density** Not applicable.

**Relative density** 0.91 - 0.93

**Solubility(ies)** Insoluble.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not applicable.

**Decomposition temperature** Not available.

**Viscosity** Not applicable.

**Explosive properties** Not available.

**Oxidising properties** Not available.

**9.2. Other information** No relevant additional information available.

## SECTION 10: Stability and reactivity

**10.1. Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability** Material is stable under normal conditions.

**10.3. Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid** Contact with incompatible materials. Heat, sparks, flames, elevated temperatures.

**10.5. Incompatible materials** Strong oxidising agents. Nitric acid.

**10.6. Hazardous decomposition products** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

#### Information on likely routes of exposure

**Inhalation** No adverse effects due to inhalation are expected.

**Skin contact** No adverse effects due to skin contact are expected.

**Eye contact** Direct contact with eyes may cause temporary irritation.

|                  |                                                                                                                     |
|------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Ingestion</b> | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |
| <b>Symptoms</b>  | Exposure may cause temporary irritation, redness, or discomfort.                                                    |

#### 11.1. Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic.

| Components | Species | Test Results |
|------------|---------|--------------|
|------------|---------|--------------|

Polyethylene (CAS 9002-88-4)

##### Acute

##### **Oral**

LD50

Rat

> 2000 mg/kg

**Skin corrosion/irritation** Due to partial or complete lack of data the classification is not possible.

**Serious eye damage/eye irritation** Due to partial or complete lack of data the classification is not possible.

**Respiratory sensitisation** Due to partial or complete lack of data the classification is not possible.

**Skin sensitisation** Due to partial or complete lack of data the classification is not possible.

**Germ cell mutagenicity** Due to partial or complete lack of data the classification is not possible.

**Carcinogenicity** Due to partial or complete lack of data the classification is not possible.

#### **IARC Monographs. Overall Evaluation of Carcinogenicity**

Polyethylene (CAS 9002-88-4)

3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - single exposure** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.

**Aspiration hazard** Due to the physical form of the product it is not an aspiration hazard.

**Mixture versus substance information** No information available.

**Other information** No other specific acute or chronic health impact noted.

## SECTION 12: Ecological information

**12.1. Toxicity** Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

**12.2. Persistence and degradability** No data is available on the degradability of this product.

**12.3. Bioaccumulative potential** No data available.

**Partition coefficient n-octanol/water (log Kow)** Not available.

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** The product is insoluble in water.

**12.5. Results of PBT and vPvB assessment** This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

**12.6. Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EU waste code** The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Disposal methods/information** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

**Special precautions** Dispose in accordance with all applicable regulations.

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

### IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

**14.7. Transport in bulk** Not applicable.  
**according to Annex II of**  
**MARPOL 73/78 and the IBC**  
**Code**

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

#### Other regulations

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

#### National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

### List of abbreviations

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.

IATA: International Air Transport Association.

IMDG Code: International Maritime Dangerous Goods Code.

MARPOL: International Convention for the Prevention of Pollution from Ships.

DNEL: Derived No-Effect Level.

PNEC: Predicted No-Effect Concentration.

LC50: Lethal Concentration, 50%.

ECHA CHEM

## References

### Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

### Full text of any H-statements not written out in full under Sections 2 to 15

None.

### Training information

Follow training instructions when handling this material.

### Further information

This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.

### Disclaimer

The information provided in this safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.