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# SAFETY DATA SHEET

**Product Code: PROCL180**



## SECTION 1 PRODUCT IDENTIFICATION

**Product name:** EOS Recyclable Plastic Proctoscope with Light Source

This safety data sheet pertains to the following products:
PG-22, PG-33, PG-80, PG-80N, and PG-383

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

**Relevant identified uses:** Mixture used for the production of molded plastic articles

## SECTION 2 HAZARD IDENTIFICATION

**2.1 Classification of the substance or mixture**

Classification according to Directive 67/548/EEC or 1999/45/EC: Not classified as hazardous (polymeric state)

Classification according to Regulation (EC) N° 1272/2008 (CLP): Not classified as hazardous (polymeric state)

**2.2 Label elements**

Not labelled as hazardous

**2.3 Other hazards**

vPVB/PBT assessment: not available

## SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Composition of the substance/ preparation**

Substance or Preparation Substance

Content

| CAS | Name |
|---|---|
| 9003-53-6 | Polystyrene or Styrene polymer |
| - | Additives |

**Impurities Contributing to Hazard:** None

**3.2 Additional information:**

Preparation does not contain dangerous substances above limits that need to be mentioned in this section according to applicable legislation.

Reach Info:

| | Pre-registration No. | Registration No. |
|---|---|---|
| Styrene | 05-2117149462-45-0000 | 01-2119457861-32-0006<br>01-2119457861-32-0007<br>01-2119457861-32-0057<br>01-2119457861-32-0065<br>01-2119457861-32-0081 |
| White mineral oil (petroleum) | 05-2117149492-42-0000 | 01-2119484627-25-0057 |

**3.3 For full text of R- and H-phrases:** See section 16

## SECTION 4 FIRST AID MEASURES

**4.1 Description of first aid measures**

**General notes:** Remove affected persons from the danger area, at the same time ensuring your own safety. Remove all contaminated clothing immediately

**Following inhalation:** In case of gases evolving from melted resin, move subject to fresh air. Treat symptomatically

**Following skin contact:** In case of pellets or powder, wash with water. In case of smelt, wash affected skin area and clothing with plenty of (soap and) water. Seek medical advice

**Following eye contact:** In case of pellets or powder, flush with plenty of water for at least 15 minutes. Seek medical advice if any dust particles still remain. In case of gases evolving from melted resin of high temperature, flush with plenty of water for at least 15 minutes. Seek medical advice if necessary

**Following ingestion:** Induce vomiting. Rinse mouth with water. Seek medical advice if necessary

**4.2 Most important symptoms & effects both acute & delayed**

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information

**4.3 Indication of any immediate medical attention and special treatment needed:**

If burn is present, treat as any thermal burn, after decontamination. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## SECTION 5 FIRE FIGHTING MEASURES

**5.1 Extinguishing media**

**Suitable extinguishing agents:** Water fog or fine spray, foam. Only in case of small fires: Dry chemical fire extinguishers, carbon dioxide fire extinguishers, Sand, earth.

**For safety reasons unsuitable extinguishing agents:** High power water jet

**5.2 Special hazards arising from the substance or mixture:**

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon dioxide. Carbon monoxide

**5.3 Advice for firefighters**

**Protective equipment:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance

**Further measures:** -

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment & emergency procedures**

Pellets or powder remained on ground may cause slipping
Wear protective equipment
Ensure adequate ventilation
Keep away from ignition sources
Keep unprotected persons away

### 6.2 Environmental precautions

Gather pellets and powder thoroughly to avoid birds or fishes taking from draining water.
Do not allow product to reach sewage system or water bodies. Inform respective authorities in case product reaches water, sewage system or soil

### 6.3 Methods and material for containment and cleaning up

Avoid generation of dust. Remove all sources of ignition.
Collect dry and place in appropriate containers for disposal. Subsequent cleaning.
Particular danger of slipping when spread on the ground.

## SECTION 7 HANDLING AND STORAGE

### 7.1 Precautions for safe handling

| | |
|---|---|
| **Protective measures:** | Provide adequate ventilation, and local exhaust as needed. Do not breathe dust. In the case of the formation of dust: Withdraw by suction. Molten material: Avoid contact with the substance. |
| **Measures to prevent fire:** | Prevent from fire around handling area |
| **Measures to prevent aerosol and dust generation:** | Maintain good housekeeping standards to prevent accumulation of dust. To avoid dust explosion resulting from the existence of powder, electrostatics eliminators and grounding should be fixed to such equipment as air transferring pipes, bag filters and hoppers. Use electrically conductive filters for bag filters. |
| **Measures to protect the environment:** | - |
| **Advice on general occupational hygiene:** | - |

### 7.2 Conditions for safe storage, including any incompatibilities

| | |
|---|---|
| **Technical measures and storage conditions:** | Keep the material at a cool dry place. Protect from direct sunlight, rain and violent temperature fluctuation. Fire is inhibited around storage area. |
| **Requirements for storage rooms and vessels:** | Store in a well-ventilated place. Keep container tightly closed. Protect against heat/sun rays |
| **Suitable materials and coating:** | - |
| **Unsuitable materials or coatings:** | - |
| **Further information on storage conditions:** | - |

### 7.3 Specific end use(s)

Recommendations: See the recommended processing condition and technical data sheet on this product for further information.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

| | |
|---|---|
| **Exposure Limits:** | Although some of the additives used in this product may have exposure guidelines, these additives are encapsulated in the product and no exposure would be expected under normal handling conditions. |

### 8.2 Exposure control

| | |
|---|---|
| **Appropriate engineering controls:** | Install eyes washer and shower in the place of operation. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits |
| **Personal protection:** | |
| **Respiratory protection:** | Wear masks for cleaning molding machines |

| | |
|---|---|
| **Hand protection:** | Heat-insulting gloves when handling molten form |
| **Eye protection:** | Wear safety glasses for general purpose. Wear chemical goggles for cleaning molding machines |
| **Skin and body protection:** | Gloves necessary for handling melted resin |
| **Hygiene measures:** | Wash hands after handling |

**8.3 Environmental exposure controls**

| | |
|---|---|
| **Product related measures to prevent exposure:** | None specific |
| **Instruction measures to prevent exposure:** | None specific |
| **Organizational measures to prevent exposure:** | None specific |
| **Technical measures to prevent exposure:** | None specific |
| **Environmental exposure controls:** | None specific |

## SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | Physical state: solid, granulate |
| **Odour** | Odorless or negligible |
| **Colour** | Natural or off white |
| **Odour threshold** | No test data available |
| **pH** | Not applicable |
| **Melting point / freezing point** | 90 - 135˚C Literature |
| **Initial boiling point and boiling range** | Not applicable |
| **Flash point** | >280˚C |
| **Evaporation rate (Butyl Acetate = 1)** | Not applicable to solids |
| **Flammability (solid, gas).** | No |
| **Upper/lower flammability or explosive limits** | Not applicable |
| **Vapour pressure** | Not applicable |
| **Vapour density (air = 1)** | Not applicable |
| **Relative density ($H_20$ = 1)** | 1.04 - 1.06 Literature |
| **Bulk density** | Not available |
| **Solubility in water (by weight)** | Insoluble |
| **Partition coefficient (n-octanol/water)** | Not available |
| **Auto-ignition temperature** | Not self-igniting. |
| **Decomposition temperature** | 300˚C |
| **Viscosity** | Not applicable |
| **Explosive properties** | Not explosive |
| **Oxidizing properties** | Not oxidizing |

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## SECTION 10 STABILITY AND REACTIVITY

| | |
|---|---|
| **10.1 Reactivity:** | Non-reactive under normal handling and storage conditions |
| **10.2 Chemical stability:** | Stable under normal handling and storage conditions |
| **10.3 Possible hazardous reaction:** | Polymerization will not occur. |
| **10.4 Conditions to avoid:** | Avoid temperatures above 300 °C. Exposure to elevated temperatures can cause product to decompose |
| **10.5 Incompatible materials:** | Strong oxidizing agents, Gasoline, aldehydes, ketone |
| **10.6 Hazardous decomposition products:** | Decomposition products depend upon temperature, air supply and the presence of other materials. Processing may release fumes and other decomposition products. At temperatures exceeding melt temperatures, polymer fragments can be released. Fumes can be irritating. Decomposition products can include and are not limited to: Combustible gases. In case of fire may be liberated: smoke, Styrene-Monomer, aldehydes and acids (organic), carbon monoxide and carbon dioxide ($CO_2$). |

## SECTION 11 TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects**

**Toxicological effects:**

Acute toxicity (oral): Based on available data, the classification criteria are not met. Mild acute toxicity
Acute toxicity (dermal): Based on available data, the classification criteria are not met. Mild acute toxicity
Acute toxicity (inhalative): Based on available data, the classification criteria are not met. Mild acute toxicity
Skin corrosion/irritation: Lack of data.
Eye damage/irritation: Lack of data.
Sensitisation to the respiratory tract: Lack of data. The chemical structure does not suggest a specific alert for such an effect.
Skin sensitisation: Based on available data, the classification criteria are not met. Not sensitizing
Germ cell mutagenicity/Genotoxicity: Lack of data. The chemical structure does not suggest a specific alert for such an effect.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Lack of data. The chemical structure does not suggest a specific alert for such an effect.
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Lack of data.
Dusts: Can cause skin, eve and respiratory tract irritation.
Specific target organ toxicity (repeated exposure): Lack of data.
Processing, thermal hazards: Vapours: Can cause skin, eye and respiratory tract irritation.

**Symptoms**

Dust:Can cause skin, eve and respiratory tract irritation.
The melted product can cause severe burns.
Irritating to eyes, respiratory system and skin.
In case of ingestion: Swallowing may cause gastrointestinal irritation and pain of guts.

## SECTION 12 ECOLOGICAL INFORMATION

**12.1 Toxicity**

Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

**12.2 Persistence and degradability**

**Further details:**

Biodegradation: Product is not readily biodegradable.
Degradation at UV-radiation/sunlight
Environmental half-life period: >=100 days (estimated)
The product is likely to persist in the environment.

**Effects in sewage plants:** In sewage treatment plants it may be separated mechanically.

**12.3 Bioaccumulative potential**

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments

**12.4 Mobility in soil**

**12.5 Results PT & vPvB assessment**

This mixture has not been assessed for persistence. bioaccumulation and toxicity (PBT).

**12.6 Other adverse effects:**

**General information:** Do not allow to enter into ground-water, surface water or drains.

## SECTION 13 DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods**

| | |
|---|---|
| **Product / Packaging disposal:** | Dispose in accordance with the current local regulations. |
| **Waste codes according to European Waste Catalogue:** | - |
| **Waste treatment-relevant information:** | Inadequate incineration may generate toxic gases such as CO. HCN. AN and SM |
| **Sewage disposal-relevant information:** | - |
| **Other disposal recommendations:** | - |

## SECTION 14 TRANSPORT INFORMATION

**ADR/RID**

| | |
|---|---|
| **14.1 UN number** | Not applicable |
| **14.2 UN proper shipping name** | |
| **Proper Shipping Name:** | NOT REGULATED |
| **14.3 Transport hazard class(es)** | Not applicable |
| **14.4 Packing Group** | Not applicable |
| **14.5 Environmental hazards** | Not considered environmentally hazardous based on available data |
| **14.6 Special precautions for user** | |
| **Special Provisions:** | No data available |
| **Hazard identification No.:** | No data available |

**ADN / ADN**

| | |
|---|---|
| **14.1 UN number** | Not applicable |
| **14.2 UN proper shipping name** | |
| **Proper Shipping Name:** | NOT REGULATED |
| **14.3 Transport hazard class(es)** | Not applicable |
| **14.4 Packing Group** | Not applicable |
| **14.5 Environmental hazards** | Not considered environmentally hazardous based on available data |
| **14.6 Special precautions for user** | No data available |

**IMDG**

**14.1 UN number** Not applicable

**14.2 UN proper shipping name**

**Proper Shipping Name:** NOT REGULATED

**14.3 Transport hazard class(es)** Not applicable

**14.4 Packing Group** Not applicable

**14.5 Environmental hazards** Not considered environmentally hazardous based on available data

**14.6 Special precautions for user**

**EMS Number:** Not applicable

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**ICAO/IATA**

**14.1 UN number** Not applicable

**14.2 UN proper shipping name**

**Proper Shipping Name:** NOT REGULATED

**14.3 Transport hazard class(es)** Not applicable

**14.4 Packing Group** Not applicable

**14.5 Environmental hazards** Not considered environmentally hazardous based on available data

**14.6 Special precautions for user** No data available

**Hazchem-Code:** -

Cool endangered containers with water jetspray.

## SECTION 15 REGULATORY INFORMATION

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

**Authorization and / or restrictions on use:** None

**Other EU regulations:** The following substances are under European Seveso regulation:

**European Inventory of Existing Commercial Chemical Substances (EINECS)**

This product is a polymer according to the definition in Directive 92/32/EEC (7th Amendment to Directive 67/548/EEC) and all of its starting materials and intentional additives are listed in the European Inventory of Existing Commercial Chemical Substances (EINECS) or in compliance with European (EU) chemical inventory requirements

**Other national regulations:** -

**15.2 Chemical Safety Assessment** For this substance a chemical safety assessment is not yet required.

## SECTION 16 OTHER INFORMATION

**16.1 Indication of changes**

**Version 1:** First issue according to Regulations (EC) 1907/2006 (REACH) & 1272/2008 (CLP)

### 16.2 Abbreviations and acronyms

| | | | |
|---|---|---|---|
| AGS | Ausschuss für Gefahrstoffe | LoW | List of Waste |
| AF | Assessment Factor | MARPOL | MARine POLlution |
| BCF | BioConcentration Factor | MIE | Minimum Ignition Energy |
| CAS | Chemical Abstract Service | N EC | European Commission number |
| CMR | Carcinogenic, Mutagenic and Reprotoxic | NFPA | National Fire Protection Association |
| CSR | Chemical Safety Report | NIOSH | National Institute of Occupational Safety and Health |
| DFG | German Research Foundation | NOEC | No Obseved Effect Concentration |
| DNEL | Derived No Effect Level | NOELR | No Observed Effect Loading Rate |
| EC | European Commission | OECD | Organisation for Economic Co-operation and Development |
| EC50 | Effective Concentration (required to induce a 50% effect) | OEL | Occupational Exposure Limit |
| EEC | European Economic Community | OSHA | Occupational Safety and Health Administration |
| EWC | European Waste Catalogue Code | PBT | Persistant Bioaccumulable Toxique |
| IDLH | Immediately Dangerous to Life or Health | PNEC | Previsible Non Effect Concentration |
| IBC | International Bulk Chemical | QSAR | Quantitative Structure-Activity Relationship |
| Koc | Soil/Water Partition Coefficient | STOT | Specific Target Organ Toxicity |
| Kow | Octanol/Water Partition Coefficient | TCLo | Toxic Concentration Low |
| LC50 | Lethal Concentration 50 | TDLo | Toxic Dose Low |
| LD50 | Lethal Dose 50 | UN | United Nations |
| LEL | Lower Explosive Limit | UVCB | Unknown or Variable Composition Complex Reaction Products, or Biological Materials |
| LL100 | Lethal Loading | vPvB | very Persistent, very Bioaccumulative |
| LOEC | Lowest Observed Effect Concentration | | |

### 16.3 Key literature references and sources for data

http://esis.jrc.ec.europa.eu/
http://echa.europa.eu/
http://gestis-en.itrust.de

### 16.4 Relevant -phrases and/or H-statements (number and full text):

| | | | |
|---|---|---|---|
| **H220** | Extremely flammable gas | **R10** | Flammable |
| **H225** | Highly flammable liquid and vapour | **R11** | Highly flammable |
| **H226** | Flammable liquid and vapour | **R12** | Extremely flammable |
| **H301** | Toxic if swallowed | **R20** | Harmful by inhalation |
| **H311** | Toxic in contact with skin | **R23/24/25** | Toxic by inhalation, in contact with skin and if swallowed |
| **H315** | Causes skin irritation | **R36** | Irritating to eyes |
| **H317** | May cause an allergic skin reaction | **R37** | Irritating to respiratory system |
| **H318** | Causes serious eye damage | **R38** | Irritating to skin |
| **H319** | Causes serious eye irritation | **R40** | Limited evidence of a carcinogenic effect |
| **H331** | Toxic if inhaled | **R41** | Risk of serious damage to eyes |
| **H332** | Harmful if inhaled | **R43** | May cause sensitisation by skin contact |
| **H335** | May cause respiratory irritation | **R45** | May cause cancer |
| **H340** | May cause genetic defects | **R46** | May cause inheritable genetic damage |
| **H350** | May cause cancer | **R50/53** | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| **H351** | Suspected of causing cancer | | |
| **H400** | Very toxic to aquatic life | **R51/53** | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| **H411** | Toxic to aquatic life with long lasting effects | | |

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**16.5 Further information:**

According to the guidance version 2.0 for monomers and polymers from the European Chemicals Agency dated as of April 2012, the classification of the polymer takes into account the classification of all its constituents, such as unreacted monomers. These constituents in fact should be taken into account for classification of the polymer. This means that the same classification methods as for mixture should be applied to polymer substances. In order to determine a classification for the studies about the water soluble fraction as well as the absorption should be performed on the polymer as such.

**Reason for revision:** To bring to date.

## END OF SDS