



## MATERIAL SAFETY DATA SHEET (EC 1907/2006)

Material name

**Neoss MSDS 4 - PMMA**

Document no

**11023**

Version

**0**

Date

**2010-06-02**

Page

**1 of 4**

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

|                                   |  |
|-----------------------------------|--|
| Trade name                        | PMMA   |
| Company                           | Neoss Ltd.<br>Windsor House<br>Cornwall road<br>Harrogate, HG1 2PW<br><a href="http://www.neoss.com">www.neoss.com</a> |
| Telephone                         | +44 1423 817-733   |
| Telefax                           | +44 1423 817-744   |
| Email                             | <a href="mailto:info@neoss.com">info@neoss.com</a>   |
| Emergency telephone number        | Your local Neoss office  |
| Use of the Substance /Preparation | Production of moulded plastic articles   |

### SECTION 2: COMPOSITION/ INFORMATION ON INGREDIENT

| Chemical Name                    | CAS No    | % (w/w) |
|----------------------------------|-----------|---------|
| Poly(methyl methacrylate) (PMMA) | 9011-14-7 | > 99.9  |

### SECTION 3: HAZARDS IDENTIFICATION

Not classified

### SECTION 4: FIRST AID MEASURES

#### Eye contact

Flush affected area with plenty of water. If symptoms develop, seek medical advice.

#### Skin contact

Flush affected area with water. If symptoms develop, seek medical advice.

#### Inhalation

If symptoms develop, remove to fresh air. If symptoms develop, seek medical advice.

#### Ingestion

Not a likely route of exposure. Do not induce vomiting without medical advice. If symptoms develop, seek medical advice.

#### Major toxic symptoms and effects

There are no specific notes.

#### Note to physician

If molten PMMA is in contact with skin, treat as any thermal burn. Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.

### SECTION 5: FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Foam, powder, carbon dioxide, water spray. **DO NOT USE** straight streams of water.

**Specific hazards arising from the chemical:** Combustible. No explosion hazard. During a fire, carbon dioxide, carbon monoxide, dense smoke and monomer vapours may be generated by thermal decomposition or combustion.

**Special protective equipment and pre cautions for fire fighters:** In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit. Keep containers cool with water spray.



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Page

**2 of 4**

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** The product may cause slippery floor conditions. Restrict access to area as appropriate until clean-up operations are complete. Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible. Do not touch spilled material. Have emergency equipment (for fires, spills, leaks, etc.) readily available.

#### **Environmental precautions**

Prevent material from entering sewers or waterways. Notify appropriate government, occupational health and safety and environmental authorities.

#### **Methods and materials for containment and cleaning up:**

Small spills: Sweep up and place in disposal container. Wash affected area.

Large spills: Sweep up and place in disposal container. Clean contaminated surfaces with water or aqueous cleaning agents. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

### SECTION 7: HANDLING AND STORAGE

#### **Precautions for safe handling**

Do not get in eyes, on skin, on clothing. Do not take internally. Avoid formation of dust. Use with adequate ventilation. Do not breathe vapours/gases/dust. Do not use, store, spill or pour near heat, sparks or open flame.

#### **Conditions for safe storage, including incompatibilities**

Store away from heat and sources of ignition. Store separately from incompatibles.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Engineering measures**

Local and/or general ventilation is recommended.

#### **Individual protection measures**

##### **General advice**

The use and choice of personal protection equipment is related to the hazard of the product, the workplace and the way the product is handled.

##### **Respiratory protection**

Not required for properly ventilated areas. If significant mists, vapours or aerosols are generated an approved respirator is recommended. A suitable filter material depends on the amount and type of chemicals being handled.

##### **Hand protection**

Wear general gloves. Where contact may occur with hot material, wear thermal resistant gloves.

##### **Skin protection**

No special protection required. Wear standard protective clothing.

##### **Eye protection**

Wear safety glasses or goggles under normal conditions. Keep an eye wash fountain available.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### **Physical appearance:**

Transparent/colourless plastic with amorphous structure in natural state.

#### **Odour:**

Odourless.

#### **Melting point:**

165°C

#### **Initial boiling point/ boiling point range:**

200°C

#### **Flash point:**

> 280°C

#### **Flammability (gas, solid):**

Combustible.

#### **Solubility:**

Immiscible

#### **Specific gravity:**

1.18



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Document no

**11023**

Version

**0**

Date

**2010-06-02**

Page

**3 of 4**

### SECTION 10: STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal conditions. Do not heat above 280°C.

**Possibility of hazardous reaction** None known.

**Conditions to avoid:** Open flame and ignition sources.

**Incompatible materials:** Contact with acids, alkalise and strong oxidizing agents.

**Hazardous decomposition products:** Oxides of carbon (COx).

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on the likely routes of exposure

Eye contact: Yes.

Skin contact: Yes.

Ingestion: No.

Inhalation: Yes (mist).

#### Delayed and immediate effects and also chronic effects from short and long term exposure

##### Acute toxicity

**Oral:** The product is not acute toxic based on similar chemicals.

**Skin:** The product is not expected to acute toxic.

**Inhalation:** Mist or vapour from heated may irritate the respiratory tract.

##### Skin corrosion/ irritation

No toxic symptoms reported. Monomer vapours from heated PMMA may cause irritation.

##### Serious eye damage/ irritation

No toxic symptoms reported. Monomer vapours from heated PMMA may cause irritation.

##### Respiratory or skin sensitization

No data available. However, based on our hazard characterization, the product is not expected to cause respiratory or skin sensitization due to low contents of the MMA (0.03 %).

##### Germ cell mutagenicity

Not expected to cause mutagenicity based on its monomer and PMMA structure.

##### Carcinogenicity

IARC Overall Evaluation: 3 (not classifiable as to carcinogenicity in humans).

ACGIH Carcinogen Category: Not Classified.

None of the substances in this product are listed as carcinogens in humans by the International Agency for Research on Cancer (IARC), American Conference of Governmental Industrial Hygienists (ACGIH) or the National Toxicology Program (NTP).

### SECTION 12: ECOLOGICAL INFORMATION

#### Toxicity

Toxicity studies have not been conducted concerning the environmental fate of the PMMA. Not expected to cause ecological effects based on to present knowledge.

#### Persistence and degrad ability

PMMA is considered inert material and not expected to be biodegradable.

#### Bio accumulative potential

PMMA is not expected to bio accumulate.

#### Other adverse effects

None known. No data available.

### SECTION 13: DISPOSAL CONSIDERATIONS

#### Disposal Methods

Dispose of wastes in an approved incinerator or waste treatment/disposal site, in accordance with all applicable regulations.

#### Precautions (on disposal of contaminated containers and packages)

No special precautions required. Combustion products are carbon monoxide, carbon dioxide and water.



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Version

**0**

Date

**2010-06-02**

Page

**4 of 4**

### SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations

### SECTION 15: REGULATORY INFORMATION

#### Labelling According To EC-Regulations

Other data According to the Dangerous Preparations Directive (1999/45/EG): no labelling

### SECTION 16: OTHER INFORMATION

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is given in good faith being based on the latest information available and is to the best and belief accurate and reliable at the time of preparation. However no representation, warranty or guarantee is made as to its accuracy, reliability or completeness and we assume no responsibility and disclaims any liability incurred in using this information. The product is supplied under condition that the user accepts the responsibility to satisfy himself so as to the suitability and completeness of such information for his own particular use.

#### Hazards not included in GHS Classification

Molten PMMA may cause thermal burns. Irritating fumes may produce at process temperatures.

#### References

1. Guideline for Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
2. Regulated chemicals info. produced by the National Institute of Technology and Evaluation (Japan).
3. WHO/IPCS: International Chemical Safety Cards (ICSC).
4. EU European Chemicals Bureau (ECB): International Uniform Chemical Information Database (IUCLID).
5. Hazardous Substances Data Bank (HSDB)
6. Ariel WebInsight DB (3E Company).