1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY / UNDERTAKING

Substance/mixture Name: CARBOXYL C5 PHOSPHONIC ACID
Product reference: SP-3-10-006
CAS No: 5650-84-0
Uses of the substance/mixture: Product from R&D - For R&D use only Not fully tested

Company: SPECIFIC POLYMERS
150 avenue des Cocardières - ZAC Via Domitia
34160 Castries - France
Telephone: +33(0)4 99 74 91 52
Fax: +33(0)4 99 74 91 36
E-mail address: cedric.loubat@specificpolymers.fr
Emergency Phone: I.N.R.S : +33 (0)1 45 42 59 59

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corrosion / Irritation Category 2</td>
<td>H315</td>
<td>Warning</td>
</tr>
<tr>
<td>Serious eye damage / eye irritation Category 2 / 2A</td>
<td>H319</td>
<td>Warning</td>
</tr>
<tr>
<td>Specific Target Organ toxicity - single exposure Category 3</td>
<td>H335</td>
<td>Warning</td>
</tr>
<tr>
<td>Serious eye damage / eye irritation Category 2</td>
<td>H319</td>
<td>Warning</td>
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<td>Warning</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Warning

Hazard statement(s)

H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Precautionary statement(s)

P280 Wear protective gloves / protective clothing / eye protection / face protection

P305+351+338 IF IN EYES Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P302+352 IF ON SKIN Wash with soap and water

Supplemental Hazard Statements none
3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBOXYL C5 PHOSPHONIC ACID</td>
<td></td>
<td>0-100%</td>
</tr>
<tr>
<td>5650-84-0</td>
<td></td>
<td>0-100%</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this section, see Section 16.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid formation of dust aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage
Keep container tightly in a dry and well-ventilated place. Store in cool place.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartriges as a backup to engineering controls.
If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection
Face shield and safety glasses. Use equipement for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN (166 (EU).

Skin and body protection
Complete suit protecting against chemicals. The type of protective equipement must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance
Form : Powder
Colour: White

b) Safety data
pH : not data available
Boiling point : not data available
Melting point : not data available
flash point : not data available
solubility in : not data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions :
Storage at room temperature

Conditions to avoid
Heat, flames and sparks.

Materials to avoid
Strong oxidizing agents.

Hazardous decomposition products
Not data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity
no data available

Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effect

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May be harmful if inhaled. May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Skin</td>
<td>May be harmful if absorbed through skin. May cause skin irritation.</td>
</tr>
<tr>
<td>Eyes</td>
<td>Causes eye burns.</td>
</tr>
</tbody>
</table>

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Additional information
RTECS: not available

12. ECOLOGICAL INFORMATION

Toxicity
No data available

Persistence and degradability
no data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

PBT and vPvB assessment
No data available

Other adverse effects
No data available
13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and no-recyclable solutions to licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

UN-Number
ADR/RID IMDG IATA

UN proper shipping name
ADR/RID IMDG IATA

Transport hazard class(es)
ADR/RID IMDG IATA

Packaging group
ADR/RID IMDG IATA

Environmental hazards
ADR/RID IMDG IATA

Special precautions for users
no data available

15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of regulation (EC) No. 1907/2006

16. OTHER INFORMATION

Skin Corrosion /Irritation Category 2
Serious eye damage/eye irritation Category 2/2A
Specific Target Organ toxicity - single exposure Category 3

H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Specific Polymers, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. The product is solely research and development purpose and not intended for food, drug or household purposes.