1. Identification

Product identifier used on the label

ULTRAMID® A3XZG5 UNCOLORED POLYAMIDE

Recommended use of the chemical and restriction on use

Recommended use*: Polymer; for industrial processing only
Suitable for use in industrial sector: Polymers industry

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company: BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Molecular formula: (C12 H22 N2 O2)N
Synonyms: Nylon 66

2. Hazards Identification


Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.
Hazards not otherwise classified

Labeling of special preparations (GHS):
May emit phosphine during storage and processing. Phosphine can cause serious lung damage.


Emergency overview

CAUTION:
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. INGESTION MAY CAUSE GASTRIC DISTURBANCES.
May emit phosphine during storage and processing. Phosphine can cause serious lung damage.
Use with local exhaust ventilation.
Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.
Wear NIOSH-certified chemical goggles.
Wear protective clothing.
Eye wash fountains and safety showers must be easily accessible.

3. Composition / Information on Ingredients


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>65997-17-3</td>
<td>&gt;= 25.0 - &lt; 50.0%</td>
<td>Glass, oxide, chemicals</td>
</tr>
<tr>
<td>7723-14-0</td>
<td>&gt;= 5.0 - &lt; 7.0%</td>
<td>red phosphorus</td>
</tr>
<tr>
<td>1314-13-2</td>
<td>&gt;= 0.3 - &lt; 1.0%</td>
<td>Zinc oxide</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Weight %</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>32131-17-2</td>
<td>&gt;= 40.0 - &lt;= 60.0%</td>
<td>polyamide (PA 66)</td>
</tr>
<tr>
<td>65997-17-3</td>
<td>&gt;= 15.0 - &lt;= 30.0%</td>
<td>Glass, oxide, chemicals</td>
</tr>
<tr>
<td>7723-14-0</td>
<td>&gt;= 5.0 - &lt;= 10.0%</td>
<td>red phosphorus</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

Description of first aid measures

General advice:
Avoid contact with the skin, eyes and clothing. Remove contaminated clothing.

If inhaled:
If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

If on skin:
Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:
In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.
If swallowed:
Rinse mouth and then drink plenty of water. Ingestion is not likely in the available physical form. If ingested, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: No significant reaction of the human body to the product known.
Hazards: No hazard is expected under intended use and appropriate handling.

Indication of any immediate medical attention and special treatment needed

Note to physician
Treatment: Treat symptomatically.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, foam, dry powder

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
Ammonium hydroxide, carbon monoxide, carbon dioxide, cyclopentanone, hydrogen cyanide,
Phosphine, amine derivatives, nitriles can be emitted at > 310 °C
Under special fire conditions traces of other toxic substances are possible. Formation of further decomposition and oxidation products depends upon the fire conditions.

Advice for fire-fighters
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Further accidental release measures:
High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment and emergency procedures
No special precautions necessary.

Environmental precautions
This product is not regulated by CERCLA ("Superfund"). This product is not regulated by RCRA.

No special precautions necessary.

Methods and material for containment and cleaning up
For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Pick up with suitable appliance and dispose of.
7. Handling and Storage

Precautions for safe handling
Provide suitable exhaust ventilation at the drying process and in the area surrounding the melt outlet of processing machines. Closed containers should only be opened in well-ventilated areas. Ensure thorough ventilation of stores and work areas.

Any short stoppages in production, it is recommended that you inject material into the mould not purge an air shot. Any molten material drooling from the machine nozzle or hot runner nozzles can self-ignite when in open atmosphere. It is therefore advisable to dispose of purgings etc into water containers.

For additional guidelines and recommendations see the product-specific “Processing Data Sheet”.

Protection against fire and explosion:
Take precautionary measures against static discharges.

Handling of hot melt may produce small flame-up conditions. Hot melt should be placed in cool water immediately if flame-up occurs.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), High density polyethylene (HDPE), Aluminium, Carbon steel (Iron)

Further information on storage conditions: Keep container tightly closed. Avoid deposition of dust. Protect against moisture.

Storage stability:
Protact against moisture.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide</td>
<td>PEL 15 mg/m3</td>
<td>TWA value 2 mg/m3</td>
</tr>
<tr>
<td></td>
<td>Total dust  ;</td>
<td>Respirable fraction ; TWA value 1 fibers/cm³</td>
</tr>
<tr>
<td></td>
<td>PEL 5 mg/m3</td>
<td>Fiber ; Respirable fibers: length &gt; 5 micrometers; aspect ratio &gt;= 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination.</td>
</tr>
<tr>
<td></td>
<td>Respirable fraction ;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STEL value 10 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>fumes/smoke ;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA value 10 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total dust  ;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA value 5 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Respirable fraction ;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA value 5 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>fumes/smoke ;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA value 1 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>ACGIH TLV</td>
<td>TWA value 5 mg/m3</td>
</tr>
</tbody>
</table>

Advice on system design:
Ensure adequate ventilation. Local exhaust ventilation preferred.
Personal protective equipment

Respiratory protection:
Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. Wear the following respiratory protection if exposure limit for phosphine may be exceeded: Wear a NIOSH-certified (or equivalent) supplied-air respirator.

Hand protection:
Wear gloves to prevent contact during mechanical processing and/or hot melt conditions.

Eye protection:
Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles).

Body protection:
Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:
Do not inhale gases/vapours/aerosols. After use of gloves apply skin-cleaning agents and skin cosmetics. Wash soiled clothing immediately.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>pellets</td>
</tr>
<tr>
<td>Odour</td>
<td>garlic-like</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Colour</td>
<td>various, depending on the colourant</td>
</tr>
<tr>
<td>pH value</td>
<td>not applicable</td>
</tr>
<tr>
<td>Melting range</td>
<td>260 °C (DIN 53765)</td>
</tr>
<tr>
<td>Boiling range</td>
<td>The substance / product decomposes therefore not determined.</td>
</tr>
<tr>
<td>Sublimation point</td>
<td>No applicable information available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 400 °C (Unspecified)</td>
</tr>
<tr>
<td>Flammability</td>
<td>not self-igniting</td>
</tr>
<tr>
<td>Flammability of Aerosol Products</td>
<td>not applicable, the product does not form flammable aerosoles</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>For solids not relevant for classification and labelling.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>For solids not relevant for classification and labelling.</td>
</tr>
<tr>
<td>Autoignition</td>
<td>&gt; 350 °C (ASTM D1929)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>1.30 - 1.60 g/cm³ (20 °C) (EN ISO 1183-1)</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available.</td>
</tr>
<tr>
<td>Bulk density</td>
<td>500 - 800 kg/m³</td>
</tr>
<tr>
<td>Vapour density</td>
<td>not applicable</td>
</tr>
<tr>
<td>Partitioning coefficient n-octanol/water (log Pow):</td>
<td>not applicable</td>
</tr>
<tr>
<td>Self-ignition temperature</td>
<td>not self-igniting</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>&gt; 310 °C (TGA)</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>not applicable, the product is a solid</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>not applicable, the product is a solid</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>insoluble</td>
</tr>
<tr>
<td>Solubility (quantitative)</td>
<td>No applicable information available.</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product is chemically stable.
No hazardous reactions known.

Conditions to avoid
Temperature: > 310 degrees Celsius

Incompatible materials
No substances known that should be avoided.

Hazardous decomposition products
Decomposition products:
Hazardous decomposition products: Ammonium hydroxide, carbon monoxide, carbon dioxide, cyclopentanone, hydrogen cyanide, Phosphine, amines, nitriles

Thermal decomposition:
> 310 °C (TGA)
To avoid thermal decomposition, do not overheat.

11. Toxicological information

Primary routes of exposure
Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Contact with molten product may cause thermal burns. The resin in pelleted form poses a low hazard.

Information on: red phosphorus
Assessment of acute toxicity: Inhalation may cause systemic effects.
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Oral
Type of value: ATE
Value: > 5,000 mg/kg
Insignificant hazard

Inhalation
Not inhalable due to the physico-chemical properties of the product.

Dermal
Type of value: ATE
Value: > 5,000 mg/kg
Insignificant hazard

Assessment other acute effects
No applicable information available.

Irritation / corrosion
Assessment of irritating effects: Thermal decomposition products of the substance can irritate the eyes, skin, and respiratory tract.

Skin
No data available.

Eye
No data available.

Sensitization
Assessment of sensitization: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Aspiration Hazard
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No applicable information available.

Genetic toxicity
Assessment of mutagenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Carcinogenicity
Assessment of carcinogenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Reproductive toxicity
Assessment of reproduction toxicity: No applicable information available.

Other Information
Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Symptoms of Exposure
No significant reaction of the human body to the product known.
12. Ecological Information

**Toxicity**

Aquatic toxicity
Assessment of aquatic toxicity:
The product has not been tested. The statement has been derived from the structure of the product. There is a high probability that the product is not acutely harmful to aquatic organisms.

**Persistence and degradability**

Assessment biodegradation and elimination (H2O)
Experience shows this product to be inert and non-degradable.

The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

**Bioaccumulative potential**

Bioaccumulation potential
The product will not be readily bioavailable due to its consistency and insolubility in water.

13. Disposal considerations

**Waste disposal of substance:**
Check for possible recycling. Dispose of in accordance with national, state and local regulations.

**Container disposal:**
Packs must be completely emptied. Completely emptied packagings can be given for recycling.

14. Transport Information

**Land transport**
USDOT
Not classified as a dangerous good under transport regulations

**Sea transport**
IMDG
Not classified as a dangerous good under transport regulations

**Air transport**
IATA/ICAO
Not classified as a dangerous good under transport regulations

15. Regulatory Information

**Federal Regulations**

Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Not hazardous;

EPCRA 313: Chemical name
CAS Number red phosphorus 7723-14-0

CERCLA RQ CAS Number Chemical name
1 LBS 7723-14-0 red phosphorus

State regulations

<table>
<thead>
<tr>
<th>State</th>
<th>CAS Number</th>
<th>Chemical name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NJ</td>
<td>7723-14-0</td>
<td>red phosphorus</td>
</tr>
<tr>
<td></td>
<td>65997-17-3</td>
<td>Glass, oxide, chemicals</td>
</tr>
<tr>
<td>PA</td>
<td>7723-14-0</td>
<td>red phosphorus</td>
</tr>
<tr>
<td></td>
<td>65997-17-3</td>
<td>Glass, oxide, chemicals</td>
</tr>
</tbody>
</table>

NFPA Hazard codes:
Health: 3 Fire: 1 Reactivity: 0 Special:

HMIS III rating
Health: 3 Flammability: 1 Physical hazard: 0

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2015/12/08

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