

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Date of issue: 05/30/2019 Revision date: 05/30/2019 Version: 1.0

SECTION 1: IDENTIFICATION

1.1. IDENTIFICATION

Product form : Mixture
Product name : ZP-4D

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Use of the substance/mixture : Non-Destructive Testing

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Manufacturer

Magnaflux
155 Harlem Ave.
Glenview, IL 60025 - USA
T 847-657-5300

Distributor

1.4. EMERGENCY TELEPHONE NUMBER

Emergency number : CHEMTREC 800-424-9300

SECTION 2: HAZARD IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS classification

Not classified.

2.2. LABEL ELEMENTS

GHS labelling

No labeling applicable

2.3. OTHER HAZARDS

No additional information available

2.4. UNKNOWN ACUTE TOXICITY

Not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

Not applicable

3.2. MIXTURES

Name	Product identifier	%
Aluminum oxide (Al ₂ O ₃)	(CAS-No.) 1344-28-1	1 - 5

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: FIRST-AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

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- | | |
|------------------------------------|---|
| Symptoms/effects after eye contact | : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. |
| Symptoms/effects after ingestion | : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

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| Suitable extinguishing media | : Use extinguishing media appropriate for surrounding fire. |
| Unsuitable extinguishing media | : Do not use a solid water stream as it may scatter and spread fire. |

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- | | |
|-------------|---|
| Fire hazard | : Products of combustion may include, and are not limited to: oxides of carbon. |
| Reactivity | : No dangerous reactions known under normal conditions of use. |

5.3. ADVICE FOR FIREFIGHTERS

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| Protection during firefighting | : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). |
|--------------------------------|--|

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

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| General measures | : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. |
|------------------|--|

6.1.1. FOR NON-EMERGENCY PERSONNEL

No additional information available

6.1.2. FOR EMERGENCY RESPONDERS

No additional information available

6.2. ENVIRONMENTAL PRECAUTIONS

Prevent entry to sewers and public waters.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

- | | |
|-------------------------|--|
| For containment | : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). |
| Methods for cleaning up | : Sweep or shovel spills into appropriate container for disposal. |

6.4. REFERENCE TO OTHER SECTIONS

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

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|-------------------------------|---|
| Precautions for safe handling | : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. |
| Hygiene measures | : Wash contaminated clothing before reuse. Always wash hands after handling the product. |

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- | | |
|--------------------|---|
| Storage conditions | : Keep out of the reach of children. Keep container tightly closed. |
|--------------------|---|

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

Aluminum oxide (Al ₂ O ₃) (1344-28-1)		
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)

8.2. EXPOSURE CONTROLS

- | | |
|----------------------------------|---|
| Appropriate engineering controls | : Ensure good ventilation of the work station. |
| Hand protection | : Wear suitable gloves. |
| Eye protection | : Safety glasses or goggles are recommended when using product. |
| Skin and body protection | : Wear suitable protective clothing. |

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Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Avoid release to the environment.
Other information	: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Solid
Appearance	: Powder.
Colour	: White
Odour	: Odourless
Odour threshold	: No data available
pH	: Neutral
Melting point	: No data available
Freezing point	: No data available
Boiling point	: Not applicable
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.26
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. OTHER INFORMATION

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No dangerous reactions known under normal conditions of use.

10.2. CHEMICAL STABILITY

Stable under normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reactions known under normal conditions of use.

10.4. CONDITIONS TO AVOID

Heat.

10.5. INCOMPATIBLE MATERIALS

None known.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

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Acute toxicity (oral) : Not classified.
 Acute toxicity (dermal) : Not classified.
 Acute toxicity (inhalation) : Not classified.

Aluminum oxide (Al₂O₃) (1344-28-1)

LD50 oral rat	> 5000 mg/kg
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Skin corrosion/irritation : Not classified.
 pH: Neutral

Serious eye damage/irritation : Not classified.
 pH: Neutral

Respiratory or skin sensitisation : Not classified.
 Germ cell mutagenicity : Not classified.
 Carcinogenicity : Not classified.
 Reproductive toxicity : Not classified.
 STOT-single exposure : Not classified.
 STOT-repeated exposure : Not classified.
 Aspiration hazard : Not classified.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
 Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
 Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. PERSISTENCE AND DEGRADABILITY

ZP-4D

Persistence and degradability	Not established.
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12.3. BIOACCUMULATIVE POTENTIAL

ZP-4D

Bioaccumulative potential	Not established.
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12.4. MOBILITY IN SOIL

No additional information available

12.5. OTHER ADVERSE EFFECTS

Other information : No other effects known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: TRANSPORT INFORMATION

In accordance with DOT/TDG/IATA/IMDG

DOT (bulk) : Not regulated for transport
 DOT (non-bulk) : Not regulated for transport
 Transportation of Dangerous Goods (TDG) : Not regulated for transport
 IATA : Not regulated for transport
 IMDG : Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. FEDERAL REGULATIONS

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

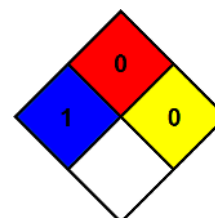
All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

Aluminum oxide (Al₂O₃) (1344-28-1)

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	1 % (fibrous forms)
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NFPA health hazard	:	1
NFPA fire hazard	:	0
NFPA reactivity	:	0



15.2. INTERNATIONAL REGULATIONS

No additional information available

15.3. US STATE REGULATIONS

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Aluminum oxide (Al₂O₃) (1344-28-1)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: OTHER INFORMATION

Revision date	:	05/30/2019
Other information	:	None.
Prepared by	:	Nexreg Compliance Inc. www.Nexreg.com



SDS HazCom 2012 - WHMIS 2015 (Nexreg_MAGNAFLUX)

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