

**SAFETY DATA SHEET for
PAPYEX® IZ980, PAPYEX® NZ998, PAPYEX® NZS200**

**0008GBFR
A-04-13
Page 1 / 4**

1. IDENTIFICATION OF SUBSTANCE AND COMPANY:

Trade name: **PAPYEX® IZ980, PAPYEX® NZ998, PAPYEX® NZS200**

Use of the substance or preparation: Refractory products and static sealing parts.

Identification of company: MERSEN FRANCE GENNEVILLIERS
41, rue Jean Jaurès
F 92231 GENNEVILLIERS CEDEX
Tel: +33 (0)1 41 85 43 00
Fax: +33 (0)1 41 85 43 15
e-mail: contact.gvs@mersen.com

Emergency telephone number: 01.45.42.59.59. (ORFILA EMERGENCY CALL).

2. IDENTIFICATION OF RISKS:

Principal risks:



H 411 - Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

P 501 - Dispose of contents/container to ... see section 13

Other risks:

Oxidation in air from 4350°C.
In the event of dispersal of the dust, risk of explosion
In the event of prolonged and repeated exposure to graphite dust, risk of pulmonary damage, leading to graphite pneumoconiosis.

3. COMPOSITION / INFORMATION ON THE COMPONENTS:

Name	EINECS number	CAS number	Registered No.	Composition	Classification
Graphite	231-955-3.	7782-42-5.	01-2119486977-12-0025.	94 % - 98 %	Not classified
Zinc,	231-175-3.	7440-66-6.	01-2119467174-37.	2 % - 6 %	H 400 / H410 Very toxic to aquatic life with long lasting effects.

Description: In the form of sheets / rolls

4. FIRST AID:

In case of inhalation: In the event of inhalation of a large quantity of dust, leave the polluted zone and breathe fresh air. – Consult a doctor

Skin contact: Wash the skin abundantly with soap and water. – In the event of irritation, consult a doctor.

Eye contact: In case of dust in the eyes, rinse copiously with water (if possible, remove contact lenses). Consult a doctor.

Ingestion: If dust is ingested, rinse out the mouth. It is advisable to consult a doctor in case of vomiting.

**SAFETY DATA SHEET for
PAPYEX® IZ980, PAPYEX® NZ998, PAPYEX® NZS200**

**0008GBFR
A-04-13
Page 2 / 4**

5. FIRE-FIGHTING MEASURES:

<i>Specific risks:</i>	When graphite burns, if the ventilation is inadequate, carbon monoxide is formed. Can constitute a risk of explosion when the product is in suspension in air in a confined space and is in contact with sparks, heat or a naked flame.
<i>Protection of personnel:</i>	Wear a sealed respiratory protection system or any independent respiratory protection system with integral mask and operating with positive pressure.
<i>Appropriate extinction means:</i>	Use chemical powders, CO ₂ or sand.
<i>Extinction means not to be used:</i>	Do not use water or foam.

6. MEASURES TO BE TAKEN IN THE EVENT OF ACCIDENTAL DISCHARGE:

<i>Personal precautions:</i>	No initiative is to be taken that involves personal risk or without appropriate training. Evacuate the surrounding area. Prevent access by persons not required and not wearing protective clothing. DO NOT TOUCH or walk in spilled product. Avoid breathing in the dust. Provide adequate ventilation. Wear an appropriate breathing apparatus when the ventilation system is inadequate. Wear appropriate personal protection equipment (see Section 8).
<i>Environmental protection precautions:</i>	Avoid the dispersal and escape of spilled materials and any contact with the soil, watercourses, sewers and drains. Inform the competent authorities in the event of pollution of the environment (sewers, watercourses, soil and air) by the product. Substance likely to cause water pollution. Can be environmentally toxic if spilled in large quantities.
<i>Cleaning method:</i>	Block any possible penetration into sewers, watercourses, cellars or confined spaces. Vacuum up spilled product and place it in a properly labelled waste container. Avoid formation of a dust cloud and prevent wind dispersal. Disposal via an authorised waste collection company. Note: see section 1 for the contact in the event of emergency and section 13 for waste disposal.

7. HANDLING AND STORAGE:

<i>Handling:</i>	Eating, drinking and smoking are to be forbidden in areas where this product is handled, stored or used. It is recommended that personnel should wash hands and face before eating, drinking and smoking. Do not swallow. Avoid contact with the skin, eyes and clothing. Avoid breathing in the dust. Avoid release to the environment.
<i>Storage</i>	Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well ventilated place, away from incompatible materials (see section 10). Keep away from any ignition source. Keep away from heat.
<i>Incompatible substances:</i>	Do not store near oxidants.
<i>Particular uses:</i>	-

SAFETY DATA SHEET for PAPYEX® IZ980, PAPYEX® NZ998, PAPYEX® NZS200	0008GBFR A-04-13 Page 3 / 4
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8. EXPOSURE CONTROL - PERSONAL PROTECTION:

Exposure limit values: graphite powder

- FRANCE:* VME: 2 mg/m³ total dust.
- FINLAND:* Time-weighted average: 5 mg/m³, JAN 1999
- GERMANY:* MAK: 4 mg/m³ (inhalable), 2005
MAK: 1.5 mg/m³ (respirable), 2005
- SWEDEN:* NGV: 5 mg/m³ (dust), JAN 1999
- SWITZERLAND:* MAK- week: 2.5 mg/m³, resp, DEC 2006
MAK- week: 5 mg/m³, resp, DEC 2006
- UNITED KINGDOM:* time-weighted average: 10 mg/m³ (inhalable), 2005

Exposure limit values: zinc powder

- United States ACGIH TLV* TWA: 10 mg/m³ 8 hour(s). Form: inhalable; particles (insoluble) not specified elsewhere, 2009
TWA: 3 mg/m³ 8 hour(s). Form: respirable; particles (insoluble) not specified elsewhere, 2009
- GERMANY:* MAK: 2 mg/m³ (inhalable), 2005
MAK: 0.1 mg/m³ (alveolar), 2005

Occupational exposure control:

- *Collective protection:* When cutting, work in a well ventilated area. If the user's manipulations cause the formation of dust, gases, vapours or fog, use sealed enclosures, ventilation by suction at source or other integral, automatic control systems to keep the exposure threshold of the technician to contaminants in suspension in air below the recommended or legal limits.
- *Respiratory protection:* When cutting, wear a breathing apparatus with filter, particle filtration, correctly adjusted and in accordance with an applicable standard if a risk evaluation shows this to be necessary.

The selection of the respiratory protection device must be based on the foreseeable or known exposure levels, the risks of the product and the limits of use without risk of the selected respiratory protection device.
- *Hands:* Gloves – single use, such as latex gloves, thickness 0.1 mm
- *Eyes:* Wear sealed safety goggles in the event of dust production.
- *Hygiene measures:* Wash hands and take a shower at the end of the shift.
Do not eat, smoke or drink at the work station.

SAFETY DATA SHEET for
PAPYEX® IZ980, PAPYEX® NZ998, PAPYEX® NZS200

0008GBFR
A-04-13
Page 4 / 4

9. PHYSICAL AND CHEMICAL PROPERTIES:

<i>Physical state:</i> Solid	<i>Self-ignition temperature:</i> Not applicable.
<i>Odour :</i> None	<i>Explosive properties:</i> Can present a risk of explosion when dust is produced, when the product is in suspension in air in a confined space and is in contact with sparks, heat or a naked flame, due to the presence of zinc.
<i>Colour:</i> Grey – black.	<i>Vapour pressure:</i> Not applicable.
<i>pH value:</i> Neutral.	<i>Vapour density:</i> Not applicable.
<i>Melting point:</i> Not applicable.	<i>Density:</i> 1.85 to 2.2
<i>Boiling point:</i> Not applicable.	<i>Solubility:</i> Insoluble in the usual solvents.
<i>Sublimation point:</i> -	<i>Water solubility:</i> Insoluble.
<i>Flash point:</i> Not applicable.	

10. STABILITY AND REACTIVITY:

<i>Conditions to avoid:</i>	Oxidation in air from 450 °C.
<i>Stability:</i>	Stable
<i>Substances to avoid:</i>	Reacts with oxidizing acids and certain alkalis, reacts with oxidants.
<i>Hazardous decomposition products:</i>	Formation of CO, CO ₂ on oxidation in contact with air when heated to more than 4350°C

11. TOXICOLOGICAL INFORMATION:

Graphite powder

Exposure by ingestion: Bibliographic data:
 CL50 (rat) >10000 mg/kg (1979)
 Graphite is not toxic by ingestion

Exposure by inhalation: Bibliographic data:
 LC50 (rat) >64.4 mg/l (1979)

In case of skin contact: -

zinc powder

Exposure by ingestion: Bibliographic data:
 DL50 - Oral Rat >2000 mg/kg -

Exposure by inhalation: Bibliographic data:
 CL50 Inhalation - Dust and fog
 Non-mammalian species, dosage: 23 g/m³
 Exposure:24 hours

In case of skin contact: -

**SAFETY DATA SHEET for
PAPYEX® IZ980, PAPYEX® NZ998, PAPYEX® NZS200**

**0008GBFR
A-04-13
Page 5 / 4**

12. ECOLOGICAL INFORMATION:

zinc powder

Ecotoxicity:

Acute CL50 0.34 mg/l - seawater
Species: crustaceans, opossum, shrimp, Americamysis bahia, juvenile (fledgling, hatchling, weanling) - <48 hours
Exposure: 48 hours
48 hours

Acute CL50 65 to 93 ug/l - fresh water
Species: daphnia, water flea, Ceriodaphnia, dubia, Neonate
Exposure: 48 hours

Acute CL50 182
Species: fish,
Exposure: 96 hours

Mobility:

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Persistence and degradability:

Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment. Substance likely to cause water pollution. Can be environmentally toxic if spilled in large quantities.

Bioaccumulation potential:

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Other harmful effects:

No known major effect or critical risk.

13. CONSIDERATIONS REGARDING DISPOSAL:

Waste:

It is recommended to avoid or reduce as far as possible the production of waste. Avoid the dispersal and escape of spilled materials and any contact with the soil, watercourses, sewers and drains. The disposal of this product, solutions and sub-products must always comply with the legal requirements with regard to environmental protection and the disposal of waste and with the requirements of all local authorities.

14. INFORMATION REGARDING TRANSPORT:

Regulatory information	UNO number	Shipping name	Class	Packaging group	Label	Other information
ADR/RID classification	UN3077	Environmentally hazardous substance, solid, n.o.s. (zinc, zinc oxide) zinc)	9	III		Limited quantity: LQ: 5 kg
ADR/RID classification ADN/ADNR	UN3077	Environmentally hazardous substance, solid, n.o.s. (zinc, zinc oxide) zinc)	9	III		
IMO/IMDG classification IMO/IMDG	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc, zinc oxide). Marine pollutant (zinc, zinc oxide)	9	III		Emergency schedules (EmS) F-A, S-F Marine pollutant
IATA class	UN3077	Environmentally hazardous substance, solid, n.o.s. (zinc, zinc oxide)	9	III		Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 911 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 911 Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg Packaging instructions: Y911

15. REGULATORY INFORMATION:

SAFETY DATA SHEET for PAPYEX® IZ980, PAPYEX® NZ998, PAPYEX® NZS200	0008GBFR A-04-13 Page 6 / 4
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<p><i>Labelling according to EC directives:</i></p> <p>Symbol(s):</p> <div style="text-align: center;">  </div>	
<p><i>Hazard statements:</i></p> <p><i>Precautionary statements:</i></p>	<p>H 411 Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.</p> <p>P 501 - Dispose of contents/container to ... see section 13</p>
<p><i>Tables of occupational diseases according to employment law:</i></p> <p>Table No. 25 – Diseases consequent upon the inhalation of mineral dusts including crystalline silica, crystalline silicates, graphite or coal.</p>	

<p>16. OTHER INFORMATION:</p>	
<p>Edition A 04 13</p>	<p>Version 1 of 19/04/13</p>