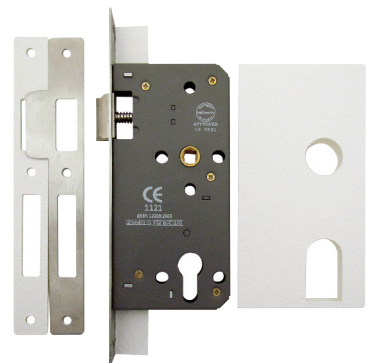


Bespoke solutions of



Phosphate-based Intumescent Hardware
Protection Products

Material Safety Data



Composition/Information on Ingredients

Chemical Nature:

Intumescent fire retardant plates based on: phosphates

Hazardous ingredients (GHS)

According to Regulation (EC) No. 1272/2008

No particular hazards known.

Hazardous ingredients (GHS)

According to Directive 1999/45/EC

Not classified as hazardous

First Aid Measures

Description of first aid measures

No special precautions necessary. The first aid measures are valid exclusively apply to the contact with the developing dusts.

If inhaled:

After inhalation of dust. Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water. Consult a doctor if skin irritation persists.

On contact with eyes:

On case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

Most important symptoms and effects, both acute and delayed:

Symptoms: No significant reaction of the human body to the product known.

Indication of any immediate medical attention and special treatment needed:

Treatment: Symptomatic treatment (decontamination, vital functions).

Fire Fighting Measures

Extinguishing media:

Suitable extinguishing media: water spray, foam, dry powder, carbon dioxide

Special hazards arising from the substance or mixture:

Carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black The substances/groups of substances mentioned can be released if the product is involved in a fire.

Advice for fire-fighters:

Special protective equipment:

No particular measures required. Put on breathing apparatus.

Further information: No particular measures required.

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. The product is immiscible with water.

Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

No special precautions necessary. Avoid dust formation.

Environmental precautions:

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up:

For large amounts: Sweep/shovel up. Dispose of absorbed material in accordance with regulations. Avoid raising dust.

Reference to other sections:

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

Handling and Storage

Precautions for safe handling:

No special measures necessary if stored and handled correctly. Avoid dust formation. Segregate from foods and animal feeds. When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities:

Further information on storage conditions: Protect against moisture. Store in unopened original containers in a cool and dry place.

Specific end use(s):

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

Exposure Controls/Personal Protection

Control parameters:

Components with occupational exposure limits
Not applicable.

Exposure controls:

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed.
(Particle filter EN 143 P1)

Hand protection:

Protective gloves against mechanical risks (EN 388)

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

light protective clothing

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of dusts. Consult the company Industrial Hygienist for recommendations on exposure testing and personal protective equipment.

Physical and Chemical Properties

Form:	sheets, stripes
Colour:	white
Odour:	odourless
Odour threshold:	No applicable information available.
PH value:	not applicable
Decomposition point:	approx. 150 - 300 °C
Boiling temperature:	not applicable
Flammability:	not determined
Density:	approx. 0.9 - 1.2 g/cm ³ (20 °C)
Relative vapour density (air):	not applicable
Solubility in water:	partly soluble (20 °C)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	not applicable, the product is a solid
Explosion hazard:	not explosive
Other information:	
Miscibility with water:	(20 °C) not applicable
Hygroscopy:	Non-hygroscopic

Stability and Reactivity

Reactivity:

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

Chemical stability:

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

Possibility of hazardous reactions:

No special precautions necessary. Avoid dust formation.

Environmental precautions:

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

Conditions to avoid:

Avoid humidity.

Incompatible materials:

Substances to avoid: strong acids, strong bases

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

Toxicological Information

Acute toxicity:

Experimental/calculated data: LD50 rat (oral): > 2,000 mg/kg

Irritation:

Experimental/calculated data: Skin corrosion/irritation rabbit: non-irritant Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization:

Assessment of sensitization: There is no evidence of a skin-sensitizing potential.

Germ cell mutagenicity:

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: Not expected to be carcinogenic (based on composition).

Toxicological Information

Reproductive toxicity:

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

Developmental toxicity:

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

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):

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

Other relevant toxicity 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. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Ecological Information

Toxicity:

Toxicity to fish: LC50 (96 h) > 100 mg/l, Fish (static)

Persistence and degradability:

Assessment biodegradation and elimination (H2O): Not readily biodegradable (by OECD criteria).

Bioaccumulative potential:

Assessment bioaccumulation potential: Accumulation in organisms is not to be expected.

Mobility in soil:

Assessment transport between environmental compartments: Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Results of PBT and vPvB assessment:

The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

Other adverse effects:

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

Additional information:

Other ecotoxicological advice: The product should not be allowed to reach either sewage waters or water purification plants. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

Disposal Considerations

Waste treatment methods:

Waste and remains, have to be disposed of according to the rules and in an environmentally compliant manner. Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

Transport Information

Land transport:

ADR

Not classified as a dangerous good under transport regulations

UN number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None Known

RID

Not classified as a dangerous good under transport regulations

UN number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None Known

Transport Information

Inland waterway transport:

ADN

Not classified as a dangerous good under transport regulations

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None know
Transport in inland waterway vessel:	Not evaluated

Sea transport:

IMDG

Not classified as a dangerous good under transport regulations

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known

Air transport:

IATA/ICAO

Not classified as a dangerous good under transport regulations

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known

UN number:

See corresponding entries for “UN number” for the respective regulations in the tables above.

UN proper shipping name:

See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

Transport hazard class(es):

See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

Packing group:

See corresponding entries for “Packing group” for the respective regulations in the tables above.

Environmental hazards:

See corresponding entries for “Environmental hazards” for the respective regulations in the tables enclosed.

Special precautions for user:

See corresponding entries for “Special precautions for user” for the respective regulations in the tables enclosed.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemical Safety Assessment:

Chemical Safety Assessment not required.

Other Information

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility.

Interdens Type 15 + 36 white:

Relevant identified uses of the substance or mixture and uses advised against Recommended use: fire prevention.

Label elements:

According to Regulation (EC) No 1272/2008 [CLP]
The product does not require a hazard warning label in accordance with GHS criteria.

According to Directive 67/548/EEC or 1999/45/EC Directive 1999/45/EC ('Preparation Directive') The product does not require a hazard warning label in accordance with EC Directives.

Other hazards According to Regulation (EC) No 1272/2008 [CLP] If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.