



## SAFETY DATA SHEET

### WEST SYSTEM 422 BARRIER COAT ADDITIVE

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

**Product name** WEST SYSTEM 422 BARRIER COAT ADDITIVE

**Product number** 422

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Additive for resins.

**Uses advised against** No specific uses advised against are identified.

##### 1.3. Details of the supplier of the safety data sheet

**Supplier** Wessex Resins & Adhesives  
Cupernham House  
Cupernham Lane  
Romsey  
Hampshire  
S051 7LF  
Tel+44(0)1794 521111  
Fax+44(0)1794 521271  
info@wessex-resins.com

##### 1.4. Emergency telephone number

**Emergency telephone** +44(0)207 858 1228

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

**Physical hazards** Not Classified

**Health hazards** Not Classified

**Environmental hazards** Not Classified

**Human health** Dust in high concentrations may irritate the respiratory system. See Section 11 for additional information on health hazards.

**Environmental** The product is not expected to be hazardous to the environment.

##### 2.2. Label elements

**Hazard statements** NC Not Classified

##### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

#### SECTION 3: Composition/information on ingredients

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### 3.2. Mixtures

<b>Aluminium Powder (Atomised)</b>	<b>60-100%</b>
CAS number: 7429-90-5	EC number: 231-072-3
<b>Classification</b> Not Classified	
<b>Mica</b>	<b>30-60%</b>
CAS number: 12001-26-2	EC number: 601-648-2
<b>Classification</b> Not Classified	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
<b>Skin contact</b>	Brush off loose particles from skin. Remove affected person from source of contamination. Rinse immediately with plenty of water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>General information</b>	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
<b>Ingestion</b>	May cause discomfort if swallowed. May cause stomach pain or vomiting.
<b>Skin contact</b>	Prolonged contact may cause dryness of the skin.
<b>Eye contact</b>	Dust may cause slight irritation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically.
<b>Specific treatments</b>	No special treatment required.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

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<b>Suitable extinguishing media</b>	Dry chemicals.
<b>Unsuitable extinguishing media</b>	Do not use water, if avoidable.

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Dust may form explosive mixture with air.
<b>Hazardous combustion products</b>	Fire creates: Hydrogen.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage.
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### 6.2. Environmental precautions

<b>Environmental precautions</b>	Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Reuse or recycle products wherever possible. Approach the spillage from upwind. Avoid generation and spreading of dust. Small Spillages: Remove spillage with vacuum cleaner or collect with a shovel and broom, or similar. Large Spillages: Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection, see Section 8. For waste disposal, see Section 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Usage precautions</b>	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use. Avoid handling which leads to dust formation.
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### Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store away from the following materials: Acids. Alkalis. Oxidising materials. Water. Chlorinated hydrocarbons.

#### Storage class

Unspecified storage.

### 7.3. Specific end use(s)

#### Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Aluminium Powder (Atomised)

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust  
 Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust

##### Mica

Long-term exposure limit (8-hour TWA): WEL 0.8 mg/m<sup>3</sup> respirable dust  
 Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust  
 WEL = Workplace Exposure Limit

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Dust-resistant, chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. Thickness:  $\geq 0.13$  mm

#### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

#### Hygiene measures

Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet.

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<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m <sup>3</sup> . Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Particulate filter, type P2.
<b>Environmental exposure controls</b>	Not regarded as dangerous for the environment.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Dusty powder.
<b>Colour</b>	Grey.
<b>Odour</b>	Mild.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not determined.
<b>Melting point</b>	660°C
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	1.2 @ 20°C
<b>Bulk density</b>	Not determined.
<b>Solubility(ies)</b>	Contact with water liberates extremely flammable gases.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	Not determined.
<b>Explosive properties</b>	Not determined.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

#### 9.2. Other information

<b>Other information</b>	Not known.
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

<b>Reactivity</b>	Stable when stored in a dry place.
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#### 10.2. Chemical stability

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**Stability** Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Will not polymerise.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, flames and other sources of ignition. Protect against direct sunlight.

### 10.5. Incompatible materials

**Materials to avoid** Strong acids. Strong alkalis. Strong oxidising agents. Water. Chlorinated hydrocarbons.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** When water is added, the product reacts with a number of metals forming hydrogen gas, which may form explosive vapour/air mixtures. Fire creates: Hydrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** Not regarded as a health hazard under current legislation.

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

#### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

**IARC carcinogenicity** None of the ingredients are listed or exempt.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

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### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

### Aspiration hazard

**Aspiration hazard** Not relevant. Solid.

### **General information**

No specific health hazards known. Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

### **Inhalation**

Dust may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

### **Ingestion**

May cause discomfort if swallowed. May cause stomach pain or vomiting.

### **Skin contact**

Prolonged contact may cause dryness of the skin.

### **Eye contact**

Dust may cause slight irritation.

### **Route of exposure**

Ingestion Inhalation Skin and/or eye contact

### **Target organs**

No specific target organs known.

### Toxicological information on ingredients.

#### Aluminium Powder (Atomised)

#### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 15,900.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** REACH dossier information. Based on available data the classification criteria are not met.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Data lacking.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Animal data** Dose: 0.5g, 24 hr, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

#### Respiratory sensitisation

**Respiratory sensitisation** Mouse: REACH dossier information. Based on available data the classification criteria are not met.

#### Skin sensitisation

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<b>Skin sensitisation</b>	Draize test: - Guinea pig: REACH dossier information. Epidemiological studies have shown no evidence of skin sensitisation.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Genome mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<b>Genotoxicity - in vivo</b>	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	NOAEL 50 mg/m <sup>3</sup> , Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Screening: - LOAEL 1000 mg/kg, Oral, Rat P Estimated value. REACH dossier information. Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Embryotoxicity: - NOAEL: 266 mg/kg/day, Oral, Rat Estimated value. REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	NOAEL 3225 mg/kg, Oral, Rat REACH dossier information. Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.

### Mica

<b>Toxicological effects</b>	No information available.
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## SECTION 12: Ecological Information

<b>Ecotoxicity</b>	Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.
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### 12.1. Toxicity

<b>Toxicity</b>	Based on available data the classification criteria are not met.
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### Ecological information on ingredients.

#### Aluminium Powder (Atomised)

<b>Toxicity</b>	Data lacking.
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### Mica

<b>Toxicity</b>	There are no data on the ecotoxicity of this product.
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### 12.2. Persistence and degradability

<b>Persistence and degradability</b>	The degradability of the product is not known.
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### Ecological information on ingredients.



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### Aluminium Powder (Atomised)

<b>Phototransformation</b>	Scientifically unjustified.
<b>Stability (hydrolysis)</b>	Scientifically unjustified.
<b>Biodegradation</b>	Scientifically unjustified.

### Mica

<b>Persistence and degradability</b>	There are no data on the degradability of this product.
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### 12.3. Bioaccumulative potential

<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
<b>Partition coefficient</b>	Not determined.

### Ecological information on ingredients.

### Aluminium Powder (Atomised)

<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
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### Mica

<b>Bioaccumulative potential</b>	No data available on bioaccumulation.
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### 12.4. Mobility in soil

<b>Mobility</b>	No data available.
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### Ecological information on ingredients.

### Aluminium Powder (Atomised)

<b>Mobility</b>	Insoluble in water.
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### Mica

<b>Mobility</b>	No information available.
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### 12.5. Results of PBT and vPvB assessment

<b>Results of PBT and vPvB assessment</b>	This product does not contain any substances classified as PBT or vPvB.
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### Ecological information on ingredients.

### Aluminium Powder (Atomised)

<b>Results of PBT and vPvB assessment</b>	This substance is not classified as PBT or vPvB according to current EU criteria.
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### Mica

<b>Results of PBT and vPvB assessment</b>	This substance is not classified as PBT or vPvB according to current EU criteria.
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### 12.6. Other adverse effects

<b>Other adverse effects</b>	None known.
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## WEST SYSTEM 422 BARRIER COAT ADDITIVE

### Ecological information on ingredients.

#### Aluminium Powder (Atomised)

**Other adverse effects** None known.

### **SECTION 13: Disposal considerations**

#### **13.1. Waste treatment methods**

**General information** The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

**Disposal methods** Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. The requirements of the local water authority must be complied with if contaminated water is flushed directly to the sewer. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

### **SECTION 14: Transport information**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

#### **14.1. UN number**

Not applicable.

#### **14.2. UN proper shipping name**

Not applicable.

#### **14.3. Transport hazard class(es)**

No transport warning sign required.

#### **14.4. Packing group**

Not applicable.

#### **14.5. Environmental hazards**

**Environmentally hazardous substance/marine pollutant**

No.

#### **14.6. Special precautions for user**

Not applicable.

#### **14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

**Transport in bulk according to** Not applicable.

**Annex II of MARPOL 73/78  
and the IBC Code**

### **SECTION 15: Regulatory information**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

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<b>National regulations</b>	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
<b>EU legislation</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LC <sub>50</sub> : Lethal Concentration to 50 % of a test population. LD <sub>50</sub> : Lethal Dose to 50% of a test population (Median Lethal Dose). EC <sub>50</sub> : 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
<b>Key literature references and sources for data</b>	Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	Not classified.: Calculation method.
<b>Training advice</b>	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
<b>Revision date</b>	24/05/2018
<b>Revision</b>	4
<b>Supersedes date</b>	01/02/2017
<b>SDS number</b>	10418

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