

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## PVC

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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

#### 1.1 Product identifier.

Product Name: PVC  
Chemical Name: PVC  
CAS No: 9002-86-2  
Registration No: Exempt

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

Pyrotechnical compositions

#### Uses advised against:

Uses other than those recommended.

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

Company: **ALDEBARÁN SISTEMAS SL**  
Address: C/Jerónimo Zurita, 10, entlo izda, 50001  
City: Zaragoza  
Province: Zaragoza  
Telephone: 0034976796134  
E-mail: aldebaran@aldebaransistemas.com

#### 1.4 Emergency telephone number: 0034915620420 (Available 24 hours)

### SECTION 2: HAZARDS IDENTIFICATION.

#### 2.1 Classification of the substance.

The product is not classified as hazardous within the meaning of Regulation (EU) No 1272/2008.

#### 2.2 Label elements.

Not applicable.

#### 2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

#### 3.1 Substances.

##### Mono-constituent.

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### Impurities or additives that affect the classification:

| Identifiers | Name               | Concentrate | (*)Classification - Regulation (EC) No 1272/2008 |                              |
|-------------|--------------------|-------------|--|------------------------------|
|             |                    |             | Classification                                   | specific concentration limit |
|             | POLYVINYL CHLORIDE | >98 %       | -  | -                            |
|             | EMULSIONANTE       | <2%         | Eye Dam. 1, H318 -<br>Skin Irrit. 2, H315        | -                            |

(\*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

[1] Substance with a Community workplace exposure limit (see section 8.1).

### 3.2 Mixtures.

Not Applicable.

## SECTION 4: FIRST AID MEASURES.

### 4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

#### Inhalation.

Move to fresh air, in resting position, half upright, with loose clothes. Oxygen or artificial respiration if there is difficulty in breathing. Consult the doctor after a major exposure.

#### Eye contact.

Wash immediately with plenty of water, at least 15 minutes. The eyelids should be kept separated from the eyeball. Consult the doctor if irritation persists.

#### Skin contact.

Wash with soap and water. Remove contaminated clothing and shoes. If the product is hot, there is a risk of burning. In case of burn, refresh the affected skin with cold water for a long time.

#### Ingestion.

Rinse the mouth and drink water. always request medical attention.

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

The powder can be irritating to the respiratory tract and cause symptoms of bronchitis. In case of exposure to the hot product, the vapors may cause irritation of the nose and throat and upper respiratory tract.

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

Recommendation for the doctor: Treat according to the symptoms.

## SECTION 5: FIREFIGHTING MEASURES.

### 5.1 Extinguishing media.

#### Suitable extinguishing media:

Foam, water spray, dry powder, carbon dioxide (CO<sub>2</sub>).

#### Unsuitable extinguishing media:

None known.

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### 5.2 Special hazards arising from the substance.

#### Special risks.

Thermal decomposition can lead to the formation of irritating gases and vapors: Carbon monoxide and hydrochloric acid.

### 5.3 Advice for firefighters.

#### Fire protection equipment.

Use self-contained breathing apparatus and protective clothing. Avoid the formation of dust. Hazardous products formed in case of fire: hydrogen chloride and hydrochloric acid.

## SECTION 6: ACCIDENTAL RELEASE MEASURES.

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

Ventilate the area. Do not breathe the dust. No Smoking. Eliminate all sources of ignition: heat, flames and sparks. For personal protection see section 8.

### 6.2 Environmental precautions.

Do not release the product in the environment. Prevent the product from entering sinkholes or water courses. Avoid the penetration of the subsoil

### 6.3 Methods and material for containment and cleaning up.

Sweep up spilled material for suitable containers for waste disposal.

### 6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

## SECTION 7: HANDLING AND STORAGE.

### 7.1 Precautions for safe handling.

Provide adequate ventilation. Use breathing equipment when ventilation is insufficient. Avoid the formation of dust. Do not breathe the dust. Do not eat, drink or smoke while handling this product. Remove all sources of ignition: heat, flame and sparks. All equipment used during product handling must be grounded.

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

Store in a dry and cold place. Store at temperatures below 30°C.

### 7.3 Specific end use(s).

None know

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

#### 8.1 Control parameters.

Work exposure limit for:

| Name | CAS No.   | Country            | Limit value | ppm | mg/m <sup>3</sup>                       |
|------|-----------|--------------------|-------------|-----|---|
| PVC  | 9002-86-2 | United Kingdom [1] | Eight hours |     | 10 (inhalable dust) 4 (respirable dust) |
|      |           |                    | Short term  |     |   |
|      |           | Spain [2]          | Eight hours |     | 1,5 (respirable dust)                   |
|      |           |                    | Short term  |     |   |

[1] According Limit Value (IOELV) list in 2nd Indicative Occupational Exposure adopted by Health and Safety Executive.


[2] According to the list of Environmental Limits of Professional Exposure adopted by the National Institute of Safety and Hygiene at Work (INSHT) for the year 2017.

The product does NOT contain substances with Biological Limit Values.

#### 8.2 Exposure controls.

##### Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

|   |  |
|---|--|
| <b>Concentration:</b>   | 100 %  |
| <b>Uses:</b>  | Pyrotechnical compositions                   |
| <b>Breathing protection:</b>  |  |
| In case of insufficient breathing, use facial mask. Type of filter recommended P2.    |  |
| <b>Hand protection:</b>   |  |
| If the product is handled correctly, no individual protection equipment is necessary. |  |
| <b>Eye protection:</b>  |  |
| PPE:  | Protective goggles against particle impacts. |
|  |  |
| <b>Skin protection:</b>   |  |
| If the product is handled correctly, no individual protective equipment is necessary. |  |

##### Hygiene measures:

Handle in accordance with good industrial hygiene and safety practices.

##### Environmental exposure controls:

The product should not be poured into the drains, the ground or the water currents.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

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

Appearance: Powder

Colour: Blanco

Odour: Inodoro

Odour threshold: N.A./N.A.

pH: N.A./N.A.

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Melting point: N.A./N.A.  
Boiling Point: N.A./N.A.  
Flash point: N.A./N.A.  
Evaporation rate: N.A./N.A.  
Inflammability (solid, gas): N.A./N.A.  
Lower Explosive Limit: N.A./N.A.  
Upper Explosive Limit: N.A./N.A.  
Vapour pressure: N.A./N.A.  
Vapour density: N.A./N.A.  
Relative density: 1,4 g/cm<sup>3</sup>  
Solubility: Insoluble in water. Soluble in tetrahydrofuran and cyclohexanone.  
Liposolubility: N.A./N.A.  
Hydrosolubility: N.A./N.A.  
Partition coefficient (n-octanol/water): N.A./N.A.  
Auto-ignition temperature: >500°C  
Decomposition temperature: >100°C  
Viscosity: N.A./N.A.  
Explosive properties: There is danger of explosion even if it is very low: the minimum ignition energy of fine dust in air is > 1000mJ (measured without induction)  
Oxidizing properties: N.A./N.A.  
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

### 9.2 Other information.

Pour point: N.A./N.A.  
Blink: N.A./N.A.  
Kinematic viscosity: N.A./N.A.  
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

## SECTION 10: STABILITY AND REACTIVITY.

### 10.1 Reactivity.

Stable under recommended storage conditions.

### 10.2 Chemical stability.

Stable up to 60°C.

### 10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous polymerization.

### 10.4 Conditions to avoid.

Keep away from open flames, hot surfaces and sources of ignition. Eviate the formation of dust. Protect from moisture.

### 10.5 Incompatible materials.

None in particular.

### 10.6 Hazardous decomposition products.

gaseous hydrochloric acid (HCl) and carbon monoxide (CO).

## SECTION 11: TOXICOLOGICAL INFORMATION.

### 11.1 Information on toxicological effects.

a) acute toxicity;  
Not conclusive data for classification.

b) skin corrosion/irritation;  
Not conclusive data for classification.

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c) serious eye damage/irritation;

Product classified:

Eye irritation, Category 2: Causes serious eye irritation.

d) respiratory or skin sensitisation;  
Not conclusive data for classification.

e) germ cell mutagenicity;  
Not conclusive data for classification.

f) carcinogenicity;  
Not conclusive data for classification.

g) reproductive toxicity;  
Not known to cause birth defects or have a detrimental effect on the development of the fetus. There are no known adverse effects on reproductive functions and organs.

h) STOT-single exposure;  
Not conclusive data for classification.

i) STOT-repeated exposure;  
Not conclusive data for classification.

j) aspiration hazard;  
Not conclusive data for classification.

## SECTION 12: ECOLOGICAL INFORMATION.

### 12.1 Toxicity.

This product is not considered dangerous for the environment.

### 12.2 Persistence and degradability.

It is not easily biodegradable.

### 12.3 Bioaccumulative potential.

No bioaccumulation is expected.

### 12.4 Mobility in soil.

No information is available.

### 12.5 Results of PBT and vPvB assessment.

No information is available.

### 12.6 Other adverse effects.

No information is available.

## SECTION 13 DISPOSAL CONSIDERATIONS.

### 13.1 Waste treatment methods.

Residues of the substance: Whenever possible, recycling is preferable to disposal. It should be disposed of in accordance with local regulations.

Contaminated packaging: Empty containers should be taken to an approved place for waste treatment for recycling or destruction.

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### SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

#### 14.1 UN number.

Transportation is not dangerous.

#### 14.2 UN proper shipping name.

Description:

ADR: Transportation is not dangerous.

IMDG: Transportation is not dangerous.

ICAO/IATA: Transportation is not dangerous.

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

Transportation is not dangerous.

#### 14.4 Packing group.

Transportation is not dangerous.

#### 14.5 Environmental hazards.

Transportation is not dangerous.

#### 14.6 Special precautions for user.

Transportation is not dangerous.

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

Transportation is not dangerous.

### SECTION 15: REGULATORY INFORMATION.

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

Restrictions of use: NONE

Other applicable regulations: NONE

#### 15.2 Chemical safety assessment.

Not necessary

### SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

H315 Causes skin irritation.

H318 Causes serious eye damage.

Sections changed compared with the previous version:

1,2,3,4,5,6,7,8,9,10,11,14,16

It is recommended that the product only be employed for the purposes advised.

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Abbreviations and acronyms used:

CEN: European Committee for Standardization.

PPE: Personal protection equipment.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.