



## SAFETY DATA SHEET

Prepared in accordance with Annex II of the REACH regulation EC 1907/2006, Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

### POLYVINYL CHLORIDE

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## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### 1.1. Substance Identification

Trade name	<b>OLTVIL</b>
Chemical name	Polyvinyl chloride (various K-values)
Synonym	Chloroethylene polymer, PVC
CAS #	9002-86-2
Molecular Formula	$(-CHCl - CH_2 -)_n$
Chemical characterization	Polymer
REACH Registration number	Excepted from registration according to Regulation (EC) 1907/2006

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

Insulating panels, doors and windows

Pipes and fittings

Electric cables insulation, weather resistant cables shielding, injected shoe soles, drums and containers

Medical applications

Toys, consumer goods and everyday life

Uses advise against:                    There are no uses advised against.

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

Name	S.C. OLTCHIM S.A
Address	1 Uzinei Street, 240050 Ramnicu Valcea, Romania
Phone N°	+40 250 701 200
FAX N°	+40 250 735 030
E-mail of competent person responsible for SDS in the MS or in the EU:	tehnich@oltchim.ro

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#### 1.4. Emergency telephone

European Emergency N°:	112
Emergency telephone at the company:	+40/250/738141
Available outside office hours:	24h/day/365days

## 2. HAZARD IDENTIFICATION

### 2.1. Classification of the substance

#### 2.1.1. Classification according to Regulation (EC) 1272/2008

Polyvinyl chloride (PVC) is not classified according to Regulation (EC) 1272/2008

#### 2.1.2 Classification according to Directive 67/548/EEC

Polyvinyl chloride (PVC) is not classified according to Directive 67/548/EEC

### 2.2. Label elements

#### 2.2.1. Labeling according to Regulation (EC) 1272/2008

Signal word: No signal word

No label according to Regulation (EC) 1272/2008.

#### 2.2.2. Labeling according to Directive 67/548/EEC

No label according to D 67/548/EEC.

### 2.3 Other hazard

**Health effects:** Not normally considered a health hazard. The content of residual vinyl chloride monomer is max. 0,0001 %, so the polyvinyl chloride presents no health effects.

**Environmental effects:** No critical hazard to the environment in the ordinary sense of valid regulations. Polyvinyl chloride is not classified as dangerous for environmental.



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**Emergency overview:** Polyvinyl chloride is a white odourless powder. When heating above decomposition temperature it will form toxic gases: carbon monoxide, carbon dioxide and gaseous hydrochloric acid. PVC handling procedures should be chosen so that it minimizes the formation of dust in the work area.

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical name	PBT/ vPvB	CAS no	Classification according to Reg (EC) No.1272/2008)	Classification according to D67/548/EC	Concentration, % (w/w)
Polyvinyl chloride	No/No	9002-86-2	no	no	100

#### Impurities

No impurities relevant for classification and labeling.

The content of residual vinyl chloride monomer is max. 0, 0001 %, so this impuritie is not relevant for classification and labeling.

### 4. FIRST AID MEASURE

#### 4.1 Description of first aid measures

**General Advice:** If exposed or if you feel unwell: Call a Poison Center or doctor/physician. Show this safety data sheet to the doctor in attendance.

**If Inhaled:** Remove to fresh air. Get medical attention if necessary.

**In case of skin contact:** Flush with plenty of water and soap immediately.

**In case of eye contact:** Wash eyes immediately with large amounts of water, occasionally lifting upper and lower eyelids, until no evidence of chemical remains at least 15-20 minutes. Do not rub the eyes. See physician if residual foreign body is suspected or irritation persists.

**If ingested:** No effects expected because the material is practically inert. Call a physicien if necessary.

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

By inhalation: Dust inhalation may cause irritation of nose, throat and lungs.

By eye contact: PVC dust causes irritations and abrasions on eye.



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By skin contact: PVC dust causes irritations and abrasions on skin.

By ingestion: No effects expected because the material is practically inert

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

No specific antidote. Treat symptomatically and supportively.

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## 5. FIRE - FIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable extinguishing media:** Dry powder, carbon dioxide, water.

**Unsuitable extinguishing media:** None

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

**Exposure hazards:** This product is nonflammable and nonexplosive under normal conditions of use. When forced to burn, the major gaseous products of combustion of PVC resin are carbon monoxide, carbon dioxide and gaseous hydrochloric acid.

**Hazardous combustion products:** When heating above decomposition temperature it will form toxic gases: carbon monoxide, carbon dioxide and gaseous hydrochloric acid.

### 5.3 Advice for firefighters

**Special precautions for fire-fighters:** Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Protection of fire-fighters:** Wear full protective equipment and self-contained breathing apparatus.

**Remarks:** Use water spray to keep fire-exposed containers cool.

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## 6. ACCIDENTAL RELEASE MEASURES

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

**For non-emergency personnel:** Keep unnecessary and unprotected personnel away from entering. Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Do not touch or walk through spilt material. Shut off all ignition sources.



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**For emergency responders:** Persons performing clean-up work should wear adequate personal protective equipment and a respirator filter for organic vapour and harmful dust. Remove all sources of ignition from the affected area.

#### 6.2. Environmental precautions

**Environmental precautions:** Prevent from contamination the ground and surface water by isolating the work area. The risks for environmental spreading of this material are low because of the absence of water solubility or soil mobility of PVC, the material is practically inert .

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

**Methods of cleaning up:** Contain spillages with dike to prevent dusting, spreading on soil or entry into the surface water, then transfer into other closed containers. Use appropriate way to prevent dusting-vacuum cleaner, shovel. Recover containers if possible and dispose according to applicable local environmental regulations. In case of necessary flushing contaminated area with water, the resulted waste waters will be treated according to applicable local environmental regulations.

**Special precautions:** None

#### 6.4 Reference to other sections

Additional advice: Refer to section 8, 13.

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## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Handling:** PVC is not a hazardous material in most of industrial operations. PVC handling procedures should be chosen so that it minimizes the formation of dust in the work area (pneumatic transport, dust filter). Not eat, drink or smoke during handling.

**Advice on general occupational hygiene:** Avoid dust generation. General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.



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

**Storage:** Stored in a cool, dry area away from heat and source of ignition. PVC, as all powdered materials, presents an electrostatic accumulation hazard, so proper grounding procedures must be used.

**Incompatible:** Keep away from Bromine and fluorine which attack PVC at room temperature. Avoid contact with ketones and tetrahydrofurane which dissolve the powder of PVC.

#### 7.3. Specific end use(s)

Please check the identified uses from Section 1.2.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits:** OSHA PEL (permissible exposure limit )    15mg/m<sup>3</sup> (total dust).  
ACGIH TVL (threshold limit value)    10mg/m<sup>3</sup> (inhalable particulate)

**Engineering control:** In work area will provide a microclimate so that the dust concentration in the air to be below the exposure limits.

#### Personal protective equipment

**Respiratory protection:** Use an air purifying (A/P) filter respirator for organic vapour and harmful dust in order to avoid inhalation of dust.

**Hand protection:** Use impervious protective gloves (leather, canvas).

**Eye / Face protection:** Wear safety chemical goggles with side shields. In the workplace will avoid using the contact lenses.

**Skin protection:** Minimize skin contact using protective canvas clothing. Clean contaminated clothing before reuse.

**Specific hygienic measures:** Do not eat or drink while using the product. Maintain shower, eye wash fountain and quick-drench facilities in work area.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### General informations

Appearance:    white powder  
Odor    odorless



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#### Important health, safety and environmental informations

pH	N/A
Boiling point:	N/A
Flash point:	391 <sup>0</sup> C
Flammability	Non flammable
Explosive properties	Explosive in open flamme
Oxidizing properties	No oxidizing properties
Specific gravity (water=1):	1.4
Bulk density	300-650 kg/m <sup>3</sup>
Solubility in water:	N/A
Vapor pressure:	N/A

#### Other informations

Melting point/decomposition:	>120 <sup>0</sup> C
Autoignition temperature	454 <sup>0</sup> C

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## 10. STABILITY AND REACTIVITY

**10.1. Reactivity:** This material is inert.

**10.2 Chemical stability:** Stable. Polyvinyl chloride is a stable polymer material and will not further polymerize. This product will not depolymerize to form vinyl chloride.

**10.3 Possibility of hazardous reactions:** No hazardous reactions.

**10.4 Conditions to avoid:** Extreme heat, flame, source of ignition.

**10.5 Incompatible materials:** Bromine and fluorine attack PVC at room temperature. Avoid contact with ketones and tetrahydrofurane which dissolve the powder of PVC.

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## 11. TOXICOLOGICAL INFORMATION

#### Animal toxicity data:

LD <sub>50</sub> Oral, rat (literature data)	210 mg/kg
LD <sub>50</sub> Intraperitoneal, rat (literature data)	75 mg/kg



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#### Acute toxicity

- **Inhalation:** Dust inhalation may cause irritation of nose, throat and lungs.
- **Eye/Skin contact:** PVC dust causes irritations and abrasions on eye or skin.
- **Ingestion:** No hazard known to borden.

**Chronic effects:** Chronic inhalation of dusts can cause pulmonary damage, blood effects and abnormal liver function. Overexposures can cause allergic dermatitis.

Workers with preexisting diseases of eyes, skin or respiratory system may increase susceptibility to the toxicity of excessive exposure. Other symptoms, if exist, would be associated with unreacted vinyl chloride. Refer to special medical attention all workers having central nervous system, respiratory system, liver or kidney disorders.

**CMR effects (Carcinogenity, Mutagenicity, toxicity for Reproduction): It has no CMR effects.**

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## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** The product is biological inert for aquatic life.

**Mobility:** The product may enter the environment from industrial waste treatment plant discharges or spills. Polyvinyl chloride is expected to be very stable in the environment.

**Persistence and degradability:** Despite the very slow biodegradability rate the product should not present an environmental hazard in surface water / soil. PVC may degrade slowly under anaerobic conditions.

**Bioaccumulative potential:** This material will persist in the environment, but will not bioaccumulate.

**Other adverse effects:** Insufficient data are available to evaluate or predict the short or long term effects to aquatic life.

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## 13. DISPOSAL CONSIDERATIONS

This section contains generic advice and guidance.

### 13.1 Waste treatment methods

#### 13.1.1 Product

**Methods of disposal:** The generation of waste should be avoided or minimized wherever possible. Residual material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and



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any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

#### 13.1.2. Packaging

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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## 14. TRANSPORT INFORMATION

**ADR:** PVC is not classified under ADR regulations.

**RID:** PVC is not classified under RID regulations.

**Maritime transport IMDG:** PVC is not classified under IMDG regulations.

**Air transport ICAO/IATA:** PVC is not classified under IATA regulations.

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## 15. REGULATORY INFORMATION

EU Regulation (EC) No. 1907/2006 (REACH)

#### **Annex XIV - List of substances subject to authorization**

Substances of very high concern (CMR): PVC is not listed on the annex XIV.

#### **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

PVC is not listed on the annex.

Other EU regulations:            Is not a SEVESO substance, not ozone depleting substance.

#### 15.2 Chemical safety Assessment

An exposure assessment is not required as PVC is a polymer and is not classified and labeled as hazardous material according to Directive 67/548/ECC and Regulation (EC) No. 1272/2008.

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## 16. OTHER INFORMATION

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.



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#### 16.1. Explanations for possible abbreviations mentioned in above section

PBT: Persistent, bioaccumulative and toxic.

vPvB: Very persistent and very bioaccumulative.

ADR: European **A**greement concerning the International Carriage of **D**angerous Goods by **R**oad.

RID: **I**nternational Carriage of **D**angerous Goods by **R**oad.

IMDG: International Maritime Dangerous Goods Code.

ICAO/IATA: International Civil Aviation Organization/ International Air Transport.

#### 16.2. Revision: Revision 0

This is the first version of the SDS of PVC according to Regulation (EC) 453/2010. Hence, no revision information should be mentioned here.

#### Disclaimer:

Oltchim provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality.

The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications. The user is responsible for ensuring that appropriate precautions are taken and for satisfying them that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.



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