

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## DINITROL PVC PA 283 O2

Revision date: 12/12/2023

Product code: 92832

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### 1. Identification

#### Product identifier

DINITROL PVC PA 283 O2

#### Recommended use of the chemical and restrictions on use

##### Use of the substance/mixture

Barrier (Sealant)

##### Uses advised against

No further relevant information available.

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

##### Manufacturer

Company name: DINOL GmbH  
Street: Pyrmonter Strasse 76  
Place: D-32676 Luegde  
Telephone: + 49 (0) 5281 982980  
E-mail: msds@dinol.com  
Contact person: Labor  
Responsible Department: msds@dinol.com

Telefax: + 49 (0) 5281 9829860

##### Supplier

Company name: DINOL U.S. Inc.  
Street: 8500 Cotter Street, Lewis Center  
Place: USA-43035 Ohio  
Telephone: 740-548-1656  
E-mail: info@dinolus.com  
Internet: www.dinol.com

Telefax: 740-548-1657

**Emergency phone number:** 3E Company Emergency +1-866-404-4230

### 2. Hazard(s) identification

#### Classification of the chemical

##### 29 CFR Part 1910.1200

Acute toxicity: Acute Tox. 4 (inhalation)  
Skin corrosion/irritation: Skin Irrit. 2  
Serious eye damage/eye irritation: Eye Dam. 1  
Respiratory or skin sensitization: Skin Sens. 1

#### Label elements

##### 29 CFR Part 1910.1200

**Signal word:** Danger

**Pictograms:**



##### Hazard statements

Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye damage  
Harmful if inhaled

##### Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.

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Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Immediately call a poison center/doctor.

#### Hazards not otherwise classified

No information available.

### 3. Composition/information on ingredients

#### Mixtures

##### Hazardous components

CAS No	Components	Quantity
1305-78-8	Calcium oxide	19 %
461-58-5	Dicyandiamide	9 %
1675-54-3	4,4'-Methylen-diphenyldiglycidylether	4.9 %

#### Further Information

Hydrocarbons meet the requirements for not being classified as carcinogenic (<0,1% benzene alt<3% (w/w) DMSO extract (IP 346)).  
The homogeneous mixing of this product is controlled by continuous physical tests. Formerly dusty raw materials are completely integrated into the liquid/pasty mass. Possible AGW-values for solid substances are therefore not given, as there is no longer any risk of inhalation of these substances (when handling this mixture).

### 4. First-aid measures

#### Description of first aid measures

##### General information

In all cases of doubt, or when symptoms persist, seek medical advice.  
Never give anything by mouth to an unconscious person or a person with cramps.  
If unconscious but breathing normally, place in recovery position and seek medical advice.

##### After inhalation

Remove casualty to fresh air and keep warm and at rest.

##### After contact with skin

Change contaminated clothing.  
After contact with skin, wash immediately with plenty of water and soap.

##### After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

##### After ingestion

If swallowed, rinse mouth with water (only if the person is conscious).  
Do NOT induce vomiting.  
Call a physician immediately.  
Put victim at rest, cover with a blanket and keep warm.

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

No further relevant information available.

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**Indication of any immediate medical attention and special treatment needed**

No information available.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Extinguishing powder, Water fog.  
Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

High power water jet.

**Specific hazards arising from the chemical**

No further relevant information available.

**Special protective equipment and precautions for fire-fighters**

No further relevant information available.

**Additional information**

Use water spray/stream to protect personnel and to cool endangered containers. Suppress gases/vapors/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation.  
Wear personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Avoid breathing dust/fume/gas/mist/vapors/spray.

**For emergency responders**

For further specification, refer to section 8 of the SDS.

**Environmental precautions**

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**Methods and material for containment and cleaning up****For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers).  
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).  
Treat the recovered material as prescribed in the section on waste disposal.

**For cleaning up**

Provide adequate ventilation.  
Clear contaminated areas thoroughly.  
Do not rinse down with water.

**Other information**

No information available.

**Reference to other sections**

Safe handling: see section 7  
Personal protection equipment (PPE): see section 8  
Disposal: see section 13

**7. Handling and storage****Precautions for safe handling**

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### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

### Advice on protection against fire and explosion

No special measures are necessary.

### Advice on general occupational hygiene

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

### Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

No special measures are necessary.

#### Hints on joint storage

Not required.

#### Further information on storage conditions

Keep container tightly closed in a cool, well-ventilated place.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
1305-78-8	Calcium oxide	-	5		TWA (8 h)	PEL
		-	2		TWA (8 h)	REL
			2		TWA (8 h)	ACGIH-2023
9002-86-2	Polyvinyl chloride (respirable fraction)		1		TWA (8 h)	ACGIH-2023
1314-13-2	Zinc oxide (Fume)	-	5		TWA (8 h)	REL
		-	10		STEL (15 min)	REL
1314-13-2	Zinc oxide (respirable fraction)		2		TWA (8 h)	ACGIH-2023
			10		STEL (15 min)	ACGIH-2023
1314-13-2	Zinc oxide Total dust	-	15		TWA (8 h)	PEL

### Exposure controls



#### Appropriate engineering controls

Provide adequate ventilation.

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Eye glasses with side protection (DIN EN 166)

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### Hand protection

Tested protective gloves must be worn (EN ISO 374):  
 FKM (fluoro rubber) penetration time (maximum wearing period): 480 min.  
 NBR (Nitrile rubber) penetration time (maximum wearing period): 480 min.  
 For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.  
 Protective gloves have to be replaced at the first sign of deterioration.  
 Protect skin by using skin protective cream.

### Skin protection

Wear anti-static footwear and clothing

### Respiratory protection

Work in well-ventilated zones or use proper respiratory protection.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:	pasty	
Color:	gray	
Odor:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Flammability:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		< 250 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value:		not applicable
Viscosity / kinematic:		not applicable
Water solubility:		Immiscible
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		not determined
Vapor pressure:		not applicable
Density (at 20 °C):		1,54 g/cm <sup>3</sup>
Relative vapour density:		not determined
Particle characteristics:		not applicable

### Other information

#### Information with regard to physical hazard classes

Explosive properties	
not determined	
Sustaining combustion:	No data available
Oxidizing properties	
not determined	

#### Other safety characteristics

Softening point:	not determined
Viscosity / dynamic:	21000 mPa·s
(at 20 °C)	

#### Further Information

No information available.

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## 10. Stability and reactivity

### Reactivity

No hazardous reaction when handled and stored according to provisions.

### Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

### Possibility of hazardous reactions

Hazardous reactions: Will not occur

No known hazardous reactions.

### Conditions to avoid

No further relevant information available.

### Incompatible materials

No information available.

### Hazardous decomposition products

No known hazardous decomposition products.

## 11. Toxicological information

### Route(s) of Entry

No information available.

### Information on toxicological effects

#### Acute toxicity

Harmful if inhaled

#### ATEmix calculated

ATE (oral) 10417 mg/kg; ATE (dermal) 2525 mg/kg; ATE (inhalation vapour) 33,33 mg/l; ATE (inhalation dust/mist) 4,902 mg/l

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
461-58-5	Dicyandiamide				
	oral	LD50 > 10000 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
	inhalation vapour	ATE 3 mg/l			
	inhalation dust/mist	ATE 0,5 mg/l			
1675-54-3	4,4'-Methylen-diphenyldiglycidylether				
	oral	LD50 > 15000 mg/kg	Rat		
	dermal	LD50 23000 mg/kg	Rabbit		

### Irritation and corrosivity

Causes skin irritation

Causes serious eye damage

### Sensitizing effects

May cause an allergic skin reaction (4,4'-Methylen-diphenyldiglycidylether)

### Carcinogenic/mutagenic/toxic effects for reproduction

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Based on available data, the classification criteria are not met.

#### Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met.

#### Specific target organ toxicity (STOT) - repeated exposure

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): Polyvinyl chloride (CAS 9002-86-2) is listed in group 3. Bisphenol A diglycidyl ether (Araldite) (CAS 1675-54-3) is listed in group 3.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Specific effects in experiment on an animal

No information available.

#### Additional information on tests

No information available.

#### Practical experience

No information available.

#### Information on other hazards

##### Endocrine disrupting properties

Endocrine disrupting potential No information available.

#### Further information

There are no data available on the preparation/mixture itself.

## 12. Ecological information

#### Ecotoxicity

CAS No	Components					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
461-58-5	Dicyandiamide					
	Acute fish toxicity	LC50 mg/l	7700	96 h		
	Acute crustacea toxicity	EC50 mg/l	3180	48 h	Daphnia magna (Big water flea)	

#### Persistence and degradability

There are no data available on the mixture itself.

#### Bioaccumulative potential

There are no data available on the mixture itself.

#### Mobility in soil

There are no data available on the mixture itself.

#### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### Other adverse effects

No information available.

#### Further information

There are no data available on the mixture itself.

## 13. Disposal considerations

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### Waste treatment methods

#### Disposal recommendations

Dispose of waste according to applicable legislation.  
Do not mix with other wastes.

#### Contaminated packaging

Dispose according to legislation.

## 14. Transport information

### U.S. DOT 49 CFR 172.101

**UN number or ID number:**

UN 3082

**Proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**Transport hazard class(es):**

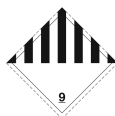
9

**Packing group:**

III

Hazard label:

9



### Marine transport (IMDG)

**UN number or ID number:**

UN 3082

**UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:

9



Special Provisions:

274 335 969

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

### Air transport (ICAO-TI/IATA-DGR)

**UN number or ID number:**

UN 3082

**UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**Transport hazard class(es):**

9

**Packing group:**

III

Hazard label:

9



Special Provisions:

A97 A158 A197 A215

Limited quantity Passenger:

30 kg G

Passenger LQ:

Y964

Excepted quantity:

E1

IATA-packing instructions - Passenger:

964

IATA-max. quantity - Passenger:

450 L

IATA-packing instructions - Cargo:

964

IATA-max. quantity - Cargo:

450 L

### Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: Yes



### Special precautions for user

Warning: Hazardous ingredients  
(zinc oxide; 4,4'-Methylen-diphenyldiglycidylether)

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

## 15. Regulatory information

### U.S. Regulations

#### National Inventory TSCA

Substance/product listed in the following inventories: TSCA

#### National regulatory information

SARA Section 311/312 Hazards:

Calcium oxide (1305-78-8): Immediate (acute) health hazard

Dicyandiamide (461-58-5): Immediate (acute) health hazard

4,4'-Methylen-diphenyldiglycidylether (1675-54-3): Immediate (acute) health hazard

### State Regulations

#### Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Directive 2004/42/EC on VOC in 0,00 %  
paints and varnishes: 0,00 g/l

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

## 16. Other information

### Hazardous Materials Identification System (HMIS)

Health: 3  
Flammability: 1  
Physical Hazard: 0

### NFPA Hazard Ratings

Health: 3  
Flammability: 1  
Reactivity: 0  
Unique Hazard: none



### Changes

Revision date: 12/12/2023  
Revision No: 1,4

This data sheet contains changes from the previous version in section(s): 2, 14.

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*