

# Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 12.09.2012

Version: 2.0

Product: **Divergan® RS**

(ID no. 30034968/SDS\_GEN\_EU/EN)

Date of print 13.09.2012

## 1. Identification of the substance/mixture and of the company/undertaking

### Product identifier

## Divergan® RS

Chemical name: 2-Pyrrolidinone, 1-ethenyl-, homopolymer; crosslinked

CAS Number: 25249-54-1

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

Relevant identified uses: food additive(s)

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

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Nutrition and Health

Telephone: +49 621 60-48434

E-mail address: EN-Masterdata@basf.com

### Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

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## 2. Hazards Identification

### Label elements

Globally Harmonized System, EU (GHS)

The product does not require a hazard warning label in accordance with GHS criteria.

According to Directive 67/548/EEC or 1999/45/EC

as in Annex VI of Directive 67/548/EEC

The product does not require a hazard warning label in accordance with EC Directives.

### **Classification of the substance or mixture**

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

The product is under certain conditions capable of dust explosion.

### **Other hazards**

According to Regulation (EC) No 1272/2008 [CLP]

The product is under certain conditions capable of dust explosion.

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## **3. Composition/Information on Ingredients**

### **Substances**

Chemical nature

polyvinylpyrrolidone, crosslinked

Hazardous ingredients

according to Directive 1999/45/EC

Does not contain any hazardous ingredients.

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## **4. First-Aid Measures**

### **Description of first aid measures**

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth and then drink plenty of water.

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

Symptoms: No significant symptoms are expected due to the non-classification of the product.

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

Treatment: Symptomatic treatment (decontamination, vital functions).

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## **5. Fire-Fighting Measures**

### **Extinguishing media**

Suitable extinguishing media:  
water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

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

Carbon dioxide, hydrogen cyanide; hydrocyanic acid, nitrous gases

### **Advice for fire-fighters**

Special protective equipment:  
Wear a self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## **6. Accidental Release Measures**

### **Personal precautions, protective equipment and emergency procedures**

Avoid dust formation.

### **Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

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

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

Dispose of absorbed material in accordance with regulations. Avoid raising dust.

### **Reference to other sections**

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

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## 7. Handling and Storage

### Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation.

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges. The product is capable of dust explosion.

### Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool 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.

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## 8. Exposure Controls/Personal Protection

### Control parameters

#### Components with workplace control parameters

Product contains residual monomer(s). The substances mentioned are contained only in traces in the product.

88-12-0: 1-vinyl-2-pyrrolidone

### Exposure controls

#### Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other  
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

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

**Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

**General safety and hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form:	powder	
Colour:	cream, almost white	
Odour:	faint odour	
Odour threshold:	Unspecified	
pH value:	not applicable	
melting point (decomposition):	The substance / product decomposes therefore not determined.	
Boiling point:	not applicable	
Flash point:	not applicable	
Evaporation rate:	not applicable	
Flammability:	negligible	(other)
Lower explosion limit:	not highly flammable	
Upper explosion limit:	not determined	
Ignition temperature:	not determined	
Vapour pressure:	440 °C	(DIN 51794)
Density:	dropped 1.2 g/cm <sup>3</sup> (20 °C)	
Relative density:	Study does not need to be conducted.	
Solubility in water:	insoluble	
Partitioning coefficient n-octanol/water (log Kow):	not determined	

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Self ignition:	Temperature: 195 °C No self ignition was observed up to the specified temperature. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.	Test type: Self-ignition at high temperatures. (Method: VDI 2263, sheet 1, 1.4.1)
Thermal decomposition:	> 145 °C	
Viscosity, dynamic:	not relevant	
Explosion hazard:	Product is not explosive, however a dust explosion could result from an air / dust mixture.	
Fire promoting properties:	not fire-propagating	

**Other information**

Minimum ignition energy:	10 - 30 mJ (approx. 1,013.25 hPa, approx. 20 °C)	(VDI 2263, sheet 1, 2.1.1)
	Inductivity: 1 mH	
	Grain size distribution: < 77 µm	
Bulk density:	approx. 200 kg/m <sup>3</sup>	

**10. Stability and Reactivity****Reactivity**

Corrosion to metals:	Corrosive effects to metal are not anticipated.
Formation of flammable gases:	Remarks: Forms no flammable gases in the presence of water.

**Chemical stability**

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

**Possibility of hazardous reactions**

Dust explosion hazard.

**Conditions to avoid**

Avoid dust formation.

**Incompatible materials**

Substances to avoid:

No substances known that should be avoided.

**Hazardous decomposition products**

Hazardous decomposition products:

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

## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation.

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg (BASF-Test)

LC50 rat (by inhalation): > 5.2 mg/l 4 h (OECD Guideline 403)

#### Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (Draize test)

Serious eye damage/irritation rabbit: non-irritant (Draize test)

#### Respiratory/Skin sensitization

Assessment of sensitization:

No data available concerning sensitizing effects.

#### Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in studies with mammals.

#### Carcinogenicity

Assessment of carcinogenicity:

In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was not observed.

#### Reproductive toxicity

Assessment of reproduction toxicity:

No data available concerning reproduction toxicity.

#### Developmental toxicity

Assessment of teratogenicity:

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No indications of a developmental toxic / teratogenic effect were seen in animal studies.

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

Assessment of repeated dose toxicity:

No data available concerning repeated dose toxicity.

#### Aspiration hazard

No data available.

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## 12. Ecological Information

### **Toxicity**

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) > 10,000 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

Microorganisms/Effect on activated sludge:

EC20 (0.5 h) > 1,995 mg/l, activated sludge, industrial (OECD Guideline 209, aerobic)

### **Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):

Poorly eliminated from water.

Elimination information:

< 10 % DOC reduction (15 d) (OECD Guideline 302 B) (aerobic, activated sludge, industrial) Poorly eliminated from water.

### **Bioaccumulative potential**

Bioaccumulation potential:

Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

### **Mobility in soil (and other compartments if available)**

Assessment transport between environmental compartments:

No data available.

### **Results of PBT and vPvB assessment**

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance



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fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

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## 13. Disposal Considerations

### Waste treatment methods

Observe national and local legal requirements.

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## 14. 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

### 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 known

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

### **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

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## **15. 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

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## 16. Other Information

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

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 of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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