

# Safety Data Sheet

## Divergan® RS

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Version: 4.0

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(30034968/SDS\_GEN\_US/EN)

### 1. Identification

#### Product identifier used on the label

## Divergan® RS

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

Recommended use\*: food additive(s)

Recommended use\*: food additive(s)

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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

##### Company:

BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

#### Emergency telephone number

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP (4357)

#### Other means of identification

Synonyms: 2-Pyrrolidinone, 1-ethenyl-, homopolymer; crosslinked

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### 2. Hazards Identification

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

#### Classification of the product

Combustible Dust                      Combustible Dust (1)                      Combustible Dust

#### Label elements

Signal Word:  
Warning

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Hazard Statement:

May form combustible dust concentration in air.

### Hazards not otherwise classified

The product is under certain conditions capable of dust explosion. The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

## 3. Composition / Information on Ingredients

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200**

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
88-12-0	0.1 - 1.0%	1-vinyl-2-pyrrolidone

## 4. First-Aid Measures

### Description of first aid measures

#### General advice:

Remove contaminated clothing.

#### If inhaled:

If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

#### If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

#### If in eyes:

Flush with copious amounts of water for at least 15 minutes. If irritation develops, seek medical attention.

#### If swallowed:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

### 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

#### Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

## 5. Fire-Fighting Measures

### Extinguishing media

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Suitable extinguishing media:  
water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons:  
carbon dioxide

### Special hazards arising from the substance or mixture

Hazards during fire-fighting:  
carbon dioxide, hydrogen cyanide, nitrous gases

### Dust explosion hazard.

### Advice for fire-fighters

Protective equipment for fire-fighting:  
Wear a self-contained breathing apparatus.

### Further information:

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

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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## 6. Accidental release measures

### Further accidental release measures:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition.

### 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.

Nonsparking tools should be used.

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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.

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Avoid whirling up the material/product because of the danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

### Conditions for safe storage, including any incompatibilities

No applicable information available.

Unsuitable materials for containers: Paper/Fibreboard

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

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## 8. Exposure Controls/Personal Protection

### Components with occupational exposure limits

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

1-vinyl-2-pyrrolidone

ACGIH TLV TWA value 0.05 ppm ;

### **Advice on system design:**

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

### Personal protective equipment

#### **Respiratory protection:**

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) respirator as necessary.

#### **Hand protection:**

Chemical resistant protective gloves

#### **Eye protection:**

Wear safety goggles (chemical goggles) if there is potential for airborne dust exposures.

#### **Body protection:**

Body protection must be chosen based on level of activity and exposure.

#### **General safety and hygiene measures:**

Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of dusts. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Wash soiled clothing immediately.

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### 9. Physical and Chemical Properties

Form:	powder	
Odour:	faint odour	
Odour threshold:	Unspecified	
Colour:	cream, almost white	
pH value:	not applicable	
melting point (decomposition):	The substance / product decomposes therefore not determined.	
Boiling point:	not applicable	
Sublimation point:	No applicable information available.	
Flash point:	not applicable	
Flammability:	not highly flammable	(other)
Lower explosion limit:	not determined	
Upper explosion limit:	not determined	
Autoignition:	440 °C	(DIN 51794)
Vapour pressure:	dropped	
Density:	1.2 g/cm <sup>3</sup> ( 20 °C)	
Relative density:	Study does not need to be conducted.	
Bulk density:	approx. 200 kg/m <sup>3</sup>	
Partitioning coefficient n- octanol/water (log Pow):	not determined	
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.	(VDI 2263, sheet 1, 1.4.1)
Thermal decomposition:	> 145 °C	
Viscosity, dynamic:	not relevant	
Viscosity, kinematic:	No applicable information available.	
Solubility in water:	insoluble	
Solubility (quantitative):	No applicable information available.	
Solubility (qualitative):	No applicable information available.	
Evaporation rate:	negligible	

### 10. Stability and Reactivity

#### Reactivity

No applicable information available.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties:

not fire-propagating

Minimum ignition energy:

10 - 30 mJ, approx. 1,013.25 hPa, approx. 20 °C, Inductivity: 1 mH, Grain size distribution: < 77 µm  
(VDI 2263, sheet 1, 2.1.1)

Formation of

Remarks:

flammable gases:

Forms no flammable gases in the  
presence of water.

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### 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

No substances known that should be avoided.

### Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

> 145 °C

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## 11. Toxicological information

### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### Acute Toxicity/Effects

#### Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation.

#### Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (BASF-Test)

#### Inhalation

Type of value: LC50

Species: rat

Value: > 5.2 mg/l (OECD Guideline 403)

Exposure time: 4 h

#### Dermal

No applicable information available.

#### Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Not irritating to the eyes.

#### Skin

Species: rabbit

Result: non-irritant

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Method: Draize test

### Eye

Species: rabbit

Result: non-irritant

Method: Draize test

### Sensitization

Assessment of sensitization: No data available.

### Aspiration Hazard

No data available.

## Chronic Toxicity/Effects

### Repeated dose toxicity

Assessment of repeated dose toxicity: No data available.

### Genetic toxicity

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.

### Teratogenicity

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

## Symptoms of Exposure

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

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## 12. Ecological Information

### Toxicity

#### Aquatic 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

#### Toxicity to microorganisms

OECD Guideline 209 aerobic

activated sludge, industrial/EC20 (0.5 h): > 1,995 mg/l

### Persistence and degradability

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### Assessment biodegradation and elimination (H2O)

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**

### Assessment transport between environmental compartments

No data available.

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## **13. Disposal considerations**

### **Waste disposal of substance:**

Observe national and local legal requirements.

### **Container disposal:**

Dispose of in accordance with national, state and local regulations.

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## **14. Transport Information**

### **Land transport**

USDOT

Not classified as a dangerous good under transport regulations

### **Sea transport**

IMDG

Not classified as a dangerous good under transport regulations

### **Air transport**

IATA/ICAO

Not classified as a dangerous good under transport regulations

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## **15. Regulatory Information**

### **Federal Regulations**

#### **Registration status:**

Chemical            TSCA, US    blocked / not listed

Food                TSCA, US    released / exempt

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**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

**NFPA Hazard codes:**

Health: 0      Fire: 1      Reactivity: 0      Special:

**HMIS III rating**

Health: 0      Flammability: 1      Physical hazard: 0

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## 16. Other Information

**SDS Prepared by:**

BASF NA Product Regulations

SDS Prepared on: 2018/10/10

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