

# MATERIAL SAFETY DATA SHEET

## VP Disp. W 2730 X



|               |               |            |
|---------------|---------------|------------|
| Material no.  | Version       | 1.15 / US  |
| Specification | Revision date | 08/27/2011 |
| Order Number  | Print Date    | 07/20/2012 |
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## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product information

Trade name : VP Disp. W 2730 X  
Use of the Substance / : catalyst  
Preparation : Ceramics

Company : Evonik Degussa Corporation USA  
299 Jefferson Road  
Parsippany, NJ 07054-0677  
USA

Telephone : 973-929-8000

Telefax : 973-929-8040

US: CHEMTREC EMERGENCY : 800-424-9300  
NUMBER

CANADA: CANUTEC : 613-996-6666  
EMERGENCY NUMBER

Product Regulatory Services : 973-929-8060

## 2. HAZARDS IDENTIFICATION

### \*\*\* EMERGENCY OVERVIEW \*\*\*

**Form-liquid**    **Color-white**    **Odor-aromatic**

Low hazard for usual industrial handling.

### POTENTIAL HEALTH EFFECTS

#### Eye contact

Possibly irritating.

#### Skin Contact

Possibly irritating.

#### Inhalation

Possibly irritating.

#### Ingestion

No hazard expected in normal use.

#### Chronic Health Hazard

IARC Category 2B (possibly carcinogenic to human).

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Information on ingredients / Hazardous components

|                  |                   |                    |        |
|------------------|-------------------|--------------------|--------|
| Titanium dioxide |                   |                    |        |
| CAS-No.          | 13463-67-7        | Percent (Wt./ Wt.) | 30 %   |
| NJTSR No.        | 56705700001-6059P |                    |        |
| CAS-No.          | Trade Secret      | Percent (Wt./ Wt.) | 1.24 % |

#### Other information

This material is classified as hazardous under OSHA regulations.  
IARC Category 2B (possibly carcinogenic to human).

### 4. FIRST AID MEASURES

#### Inhalation

If aerosol or mists are formed: Take affected persons out into the fresh air.

#### Skin contact

Wash off with soap and plenty of water.

#### Eye contact

In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if irritation develops.

#### Ingestion

If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

### 5. FIRE-FIGHTING MEASURES

|                          |                |
|--------------------------|----------------|
| Lower explosion limit    | not applicable |
| Upper explosion limit    | not applicable |
| Autoignition temperature | not applicable |

#### Suitable extinguishing media

All extinguishing substances suitable.

#### Specific hazards during fire fighting

None known.

#### Special protective equipment for fire-fighters

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Wear personal protective equipment.

### Environmental precautions

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

### Methods for cleaning up

Pick up mechanically with an adsorbent and collect in a suitable container.  
Rinse with water in suitable containers.

## 7. HANDLING AND STORAGE

### Handling

#### Safe handling advice

Stir and/or shake well before use. Always close container tightly after removal of product.

#### Advice on protection against fire and explosion

No special precautions required.

### Storage

#### Requirements for storage areas and containers

Keep containers tightly closed in a dry, cool place.  
Avoid heat effect and frost.

#### Storage stability

Product Information

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Component occupational exposure guidelines

#### • Titanium dioxide

CAS-No. 13463-67-7  
Control parameters 10 mg/m<sup>3</sup>  
15 mg/m<sup>3</sup>  
Total dust.

Time Weighted Average (TWA):(ACGIH)  
PEL:(OSHA Z1)

### Personal protective equipment

#### Respiratory protection

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

#### Hand protection

Use impermeable gloves.

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### Eye protection

Use chemical splash goggles or face shield.

### Skin and body protection

A safety shower and eye wash fountain should be readily available.

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

### Hygiene measures

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.

To ensure ideal skin protection: use super fatted soaps and skin cream for skin care.

Wash contaminated clothing before re-use.

### Protective measures

Handle in accordance with good industrial hygiene and safety practices.

If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

|       |          |
|-------|----------|
| Form  | liquid   |
| Color | white    |
| Odor  | aromatic |

### Safety data

|                           |                        |                  |
|---------------------------|------------------------|------------------|
| pH                        | 6.5 - 7.5              |                  |
| Melting point/range       | ca. 1850 °C            |                  |
|                           | related to substance:  | Titanium dioxide |
| Flammability              | not applicable         |                  |
| Autoignition temperature: | not applicable         |                  |
| Autoinflammability        | not applicable         |                  |
| Lower explosion limit     | not applicable         |                  |
| Upper explosion limit     | not applicable         |                  |
| Vapor pressure            | 23.5 hPa               |                  |
|                           | related to substance:  | water            |
| Density                   | 1.29 g/cm <sup>3</sup> |                  |
| Water solubility          | miscible               |                  |
| Viscosity, dynamic        | < 100 mPa.s            |                  |

## 10. STABILITY AND REACTIVITY

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Hazardous decomposition products None known.

Thermal decomposition Stable under normal conditions.

## 11. TOXICOLOGICAL INFORMATION

Product Acute oral toxicity LD50 Rat: > 10000 mg/kg  
Method: literature  
(limit test)  
related to substance: Titanium dioxide

Product Acute dermal toxicity LD50 Rabbit: >= 10000 mg/kg  
Method: literature  
related to substance: Titanium dioxide

Product Skin irritation Rabbit  
literature  
not irritating  
related to substance: Titanium dioxide

Product Eye irritation Rabbit  
literature  
not irritating  
related to substance: Titanium dioxide

Product Sensitization Optimizations-test guinea pig: not sensitizing  
Method: literature  
related to substance: Titanium dioxide

Patch test : not sensitizing  
Method: literature  
related to substance: Titanium dioxide

Product Gentoxicity in vitro Microorganisms, cell cultures  
Shown no mutagenic/genotoxic effect., literature  
related to substance: Titanium dioxide

Product Gentoxicity in vivo Microorganisms, cell cultures  
Shown no mutagenic/genotoxic effect., literature  
related to substance: Titanium dioxide

Product Carcinogenicity Oral rat, mouse: 103 weeks  
no evidence that cancer may be caused, literature.  
Feeding experiments  
related to substance: Titanium dioxide

inhalative Rat: 2 years  
Method: literature  
Increased incidence of lung tumors.  
The scientific discussion of the tumorigenic effect of sparingly soluble inorganic particles (fine dusts)- such as titanium dioxide - is ongoing. It is the opinion of many inhalation toxicologists that the tumor formation

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observed in rats results from a species-specific mechanism involving overloading of the rat lung (overload phenomenon). Corresponding findings resulting from exposure of humans have not been observed to date. On the other hand, the International Agency for Research on Cancer (IARC) assessed, in February of 2006, the available rat model studies as constituting sufficient proof of the carcinogenicity of titanium dioxide in animal models. For humans, the IARC does not see sufficient evidence of a carcinogenic effect of titanium dioxide. However, the IARC evaluation scheme results in an overall assessment of titanium dioxide as "possibly carcinogenic to humans" (Group 2B).

related to substance: Titanium dioxide

inhalative (mouse): 2 years

no evidence that cancer may be caused, literature.

related to substance: Titanium dioxide

Component carcinogenicity assessment

Titanium dioxide  
13463-67-7

Contains a component which is classified as an IARC 2B carcinogen (possibly carcinogenic to humans).

Product General Toxicity Information

No results of animal experiments with the product available.

Product Human experience

Epidemiological studies to date have not revealed any evidence of a relation between exposure to titanium dioxide and diseases of the respiratory tract beyond general effects of dust.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

Toxicity to fish

LC50 *Fundulus heteroclitus*: > 1000 mg/l / 96 h

Method: literature

related to substance: Titanium dioxide

Toxicity to daphnia

EC0 *Daphnia magna*: 1000 mg/l / 48 h

Method: literature

related to substance: Titanium dioxide

Toxicity to bacteria

EC0 *Pseudomonas fluorescens*: 10000 mg/l / 24 h

Method: DEV, DIN 38412, T. 8 (modified).

related to substance: Titanium dioxide

General Ecological Information

No ecotoxicological studies are available.

## 13. DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL

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Advice on disposal

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method.

## 14. TRANSPORT INFORMATION

### Transport/further information

Not dangerous according to transport regulations.

## 15. REGULATORY INFORMATION

### Information on ingredients / Non-hazardous components

This product contains the following non-hazardous components

|                            |              |                    |        |
|----------------------------|--------------|--------------------|--------|
| NJTSR No.56705700001-6815P |              |                    |        |
| CAS-No.                    | Trade Secret | Percent (Wt./ Wt.) | 1.06 % |
| Water                      |              |                    |        |
| CAS-No.                    | 7732-18-5    | Percent (Wt./ Wt.) | 67.7 % |

### US Federal Regulations

#### OSHA

If listed below, chemical specific standards apply to the product or components:

- None listed

#### Clean Air Act Section (112)

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- None listed

#### CERCLA Reportable Quantities

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- None listed

#### SARA Title III Section 311/312 Hazard Categories

The product meets the criteria only for the listed hazard classes:

- Acute Health Hazard
- Chronic Health Hazard

#### SARA Title III Section 313 Reportable Substances

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

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### Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

### State Regulations

The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in section 2 and 15 of this MSDS.

### California Proposition 65

A warning under the California Drinking Water Act is required only if listed below:

- None listed

### International Chemical Inventory Status

Unless otherwise noted, this product is in compliance with the inventory listing of the countries shown below. For information on listing for countries not shown, contact the Product Regulatory Services Department.

|                          |                   |
|--------------------------|-------------------|
| • Europe (EINECS/ELINCS) | Listed/registered |
| • USA (TSCA)             | Listed/registered |
| • Canada (DSL)           | Listed/registered |
| • Australia (AICS)       | Listed/registered |
| • Japan (MITI)           | Listed/registered |
| • Korea (TCCL)           | Listed/registered |
| • Philippines (PICCS)    | Listed/registered |
| • China                  | Listed/registered |

## 16. OTHER INFORMATION

### HMIS Ratings

|                   |   |
|-------------------|---|
| Health :          | 1 |
| Flammability :    | 0 |
| Physical Hazard : | 0 |

### NFPA Ratings

|                |   |
|----------------|---|
| Health :       | 1 |
| Flammability : | 0 |
| Reactivity :   | 0 |



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## Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.