

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	1 / 11

1. Identification**1.1. Product identifier**

Trade name	VPS 7161
Chemical Name	1,3,5-tris[3-(trimethoxysilyl)propyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trione
CAS-No.	26115-70-8

1.2. Recommended use of the chemical and restrictions on use

Relevant applications identified	For industrial use
Function	Additive Coupling agent

1.3. Details of the supplier of the safety data sheet

Company	Evonik Corporation USA 299 Jefferson Road Parsippany, NJ 07054-0677 USA
Telephone	973-929-8000
Telefax	973-929-8040
Email address	Product-Regulatory-Services@Evonik.com

1.4. 24 HOUR EMERGENCY TELEPHONE NUMBERS:

CHEMTREC - US & CANADA:	800-424-9300
CHEMTREC MEXICO:	01-800-681-9531
CHEMTREC INTERNATIONAL:	+1 703-527-3887 (collect calls accepted)

Product Regulatory Services : 973-929-8060

2. Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation 29CFR 1910.1200
Acute toxicity (Oral) Category 4 H302

2.2. Label elements

Statutory basis Classification according to Regulation 29CFR 1910.1200
Symbol(s)



SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	2 / 11

Signal word	Warning
Hazard statement	H302 - Harmful if swallowed.
Precautionary statement: Prevention	P264 - Wash skin thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.
Precautionary statement: Reaction	P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
Precautionary statement: Disposal	P501 - Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

None known

3. Composition/information on ingredients

• 1,3,5-tris[3-(trimethoxysilyl)propyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trione		>= 90% - <=
100%		
CAS-No.	26115-70-8	
Acute toxicity (Oral)		Category 4
• Methanol		>= 0.1% - < 1%
CAS-No.	67-56-1	
Flammable liquids		Category 2
Acute toxicity (Oral)		Category 3
Acute toxicity (Inhalation)		Category 3
Acute toxicity (Dermal)		Category 3
Specific target organ toxicity - single exposure		Category 1

4. First aid measures**4.1. Description of first aid measures****General advice**

Remove contaminated or saturated clothing immediately and follow safe disposal procedures.

Inhalation

If aerosol or mists are inhaled, take affected persons out into the fresh air. In case of persistent discomfort or other symptoms, consult a physician immediately.

Skin contact

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Obtain medical attention immediately if symptoms occur. Wash clothing before reuse.

Eye contactRinse thoroughly with plenty of water keeping eyelid open.
In case of persistent discomfort: Consult an ophthalmologist.**Ingestion**

Have the mouth rinsed with water.

After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

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

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	3 / 11

Symptoms

There is no specific therapy or antidote treatment known in cases of accidental ingestion of the substance. If a large amount of substance is ingested, treatment may include administration of activated charcoal or acceleration of the gastro-intestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed

None known

5. Fire-fighting measures**5.1. Extinguishing media**

Suitable extinguishing media: Water spray, foam, CO2, dry powder.

Unsuitable extinguishing media: None known

5.2. Special hazards arising from the substance or mixture

Hazard-determining flue gases might develop in case of fire:
nitrogen oxides (NOx)

5.3. Advice for firefighters

Water used to extinguish fire should not enter drainage systems, soil or stretches of water.

Ensure there are sufficient retaining facilities for water used to extinguish fire.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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

6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Wear personal protective equipment. Observe the rules usually applicable when handling chemicals. Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems. Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

6.3. Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. Handling and storage**7.1. Precautions for safe handling**

Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities**Advice on protection against fire and explosion**

Normal measures for preventive fire protection.

Storage

Keep container tightly closed.

Suitable materials stainless steel

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	4 / 11

8. Exposure controls/personal protection**8.1. Control parameters****Other information**

No substance-specific limiting value being known.

Hazardous components without workplace control parameters

8.2. Exposure controls**Engineering measures**

Application, processing: Provide good ventilation or extraction.

Use this product preferably in a closed system, or use process enclosures, local exhaust ventilation or other engineering controls to minimize airborne exposure.

Personal protective equipment**Respiratory protection**

In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter (filter type ABEK) or wear a self contained respiratory apparatus

Use only respiratory protection equipment with CE-symbol including four digit test number.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Note time limit for wearing respiratory protective equipment.

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

Glove material for example, butyl-rubber

Material thickness 0.5 mm

Break through time \geq 480 min

Glove material for example, Fluorinated rubber (Viton)

Material thickness 0.4 mm

Break through time \geq 480 min

Selection of protective gloves to meet the requirements of specific workplaces.

Suitability for specific workplaces should be clarified with protective glove manufacturers.

The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials.

Please observe that the daily duration of usage of a chemical protective glove is in practice far shorter due to the many influencing factors (e.g. temperature, mechanical strain on the glove material) than the permeation time determined acc. EN 374.

The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use.

Eye protection

Safety glasses

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.

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	5 / 11

Hygiene measures

Remove immediately all contaminated clothing.
Wash contaminated clothing before re-use.

Protective measures

Handle in accordance with good industrial hygiene and safety practice.
If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used.
If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.
Do not breathe in vapours or aerosols.
Avoid contact with skin and eyes.

9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

physical state	liquid
Colour	yellowish
Form	liquid
Odour	characteristic
Odour Threshold	not determined
pH	8.6 (1000 g/l) (20 °C)
Melting point/range	-25 °C Setting point
Boiling point/range	237.0 - 247.0 °C (35 hPa)
Flash point	> 95 °C Method: DIN EN ISO 2719 (Pensky-Martens, Closed Cup)
Evaporation rate	not determined
Flammability (solid, gas)	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Density	1.176 g/cm ³ (20 °C) Method: DIN 51757
Water solubility	not miscible decomposition by hydrolysis
Partition coefficient: n-octanol/water	not determined
Autoignition temperature	not determined
Thermal decomposition	not determined
Viscosity, dynamic	approx. 430 mPa.s (20 °C)

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	6 / 11

9.2. Other information

Explosiveness no explosion limits under standard conditions

10. Stability and reactivity**10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None known.

10.4. Conditions to avoid

humidity

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

Methanol in case of hydrolysis.

11. Toxicological information**11.1. Information on toxicological effects***No toxicological tests are available on the product.*Acute oral toxicity LD50 Rat: 1717 mg/kg
(literature value)

Acute inhalation toxicity No data available

Acute toxicity estimate : > 40 mg/l / 4 h / vapour
Method: Calculation methodAcute toxicity estimate : > 40 mg/l / 4 h / vapour
Method: Calculation method

Acute dermal toxicity No data available

Acute toxicity estimate : > 5000 mg/kg
Method: Calculation methodAcute toxicity estimate : > 5000 mg/kg
Method: Calculation method

Skin irritation No data available

Eye irritation No data available

Sensitization No data available

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	7 / 11

Assessment of STOT single exposure	No data available
Assessment of STOT repeat exposure	No data available
Risk of aspiration toxicity	No data available
Gentoxicity in vitro	No data available
Carcinogenicity	No data available
Toxicity to reproduction	No data available

12. Ecological information**12.1. Toxicity**

No ecotoxicological data is available for this product.

12.2. Persistence and degradability

Biodegradability No data available

12.3. Bioaccumulative potential

Bioaccumulation No data available

12.4. Mobility in soil

Mobility No data available

12.5. Other adverse effects

Further Information No ecotoxicological data is available for this product.
No further information available

13. Disposal considerations**13.1. Waste treatment methods**

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	8 / 11

Product

Waste must be disposed of in accordance with federal, state, provincial and local regulations. Since empty containers retain product residue, follow MSDS and label warnings even after container is emptied.

Uncleaned packaging

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

If there is product residue in the emptied container, follow directions for handling on the container's label.

Incorrect disposal or reuse of this container is illegal and can be dangerous.

Other countries: observe the national regulations.

14. Transport information**Not dangerous according to transport regulations.**

- 14.1. UN number: --
- 14.2. UN proper shipping name: --
- 14.3. Transport hazard class(es): --
- 14.4. Packing group: --
- 14.5. Environmental hazards (Marine pollutant): --
- 14.6. Special precautions for user: Yes
Not dangerous according to transport regulations.

15. Regulatory information**US Federal Regulations****OSHA**

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

- None listed

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	9 / 11

Clean Air Act Section (112)

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

- Methanol
CAS-No. 67-56-1

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

Remarks This material does not contain any components with a SARA 302 RQ.

SARA 304 - Emergency Release Notification

Remarks This material does not contain any components with a section 304 EHS RQ.

SARA Title III Section 311/312 Hazard Categories

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

- Acute 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

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**California Proposition 65**

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

- Methanol
CAS-No. 67-56-1

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

HMIS Ratings

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	10 / 11

Health :	2
Flammability :	1
Physical Hazard :	0

16. Other information**Further information**

Revision date 11/28/2017

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

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Legend

ACC	American Chemistry Council
ACGIH	American Conference of Governmental Industrial Hygienists
ACS	Advisory Committee on Sustainability
ADI	Acceptable Daily Intake
ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand
c.c.	closed cup
CAO	Cargo Aircraft Only
Carc	Carcinogen
CAS	Chemical Abstract Services
CDN	Canada
CEPA	Canadian Environmental Protection Act
CERCLA	Comprehensive Environmental Response – Compensation and Liability Act
CFR	Code of Federal Regulations
CMR	carcinogenic-mutagenic-toxic for reproduction
COD	Chemical oxygen demand
DIN	German Institute for Standardization
DM EL	Derived minimum effect level
DNEL	Derived no effect level
DOT	Department of Transportation
EC50	half maximal effective concentration
EPA	Environmental Protection Agency
ErC50	Reduction of Growth Rate
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
HCS	Hazard Communication Standard
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association

SAFETY DATA SHEET**VPS 7161**

Material no.		Version	3.3 / US
Specification	116677	Revision date	11/28/2017
Order Number		Print Date	11/30/2017
		Page	11 / 11

IBC	Intermediate Bulk Container
ICAO-TI	International Civil Aviation Organization- Technical Instructions
ICCA	International Council of Chemical Association
ID	Identification number
IMDG	International Maritime Dangerous Goods
IUPAC	International Union of Pure and Applied Chemistry
ISO	International Organization For Standardization
LC50	50 % Lethal Concentration
LD50	50 % Lethal Dose
L(E)C50	LC50 or EC50
LOAEL	Low est observed adverse effect level
LOEL	Low est observed effect level
MARPOL	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organisation for Economic Cooperation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
RQ	Reportable Quantity
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
UN	United Nations
vPvB	very persistent, very bioaccumulative
voc	volatile organic compounds
WHMIS	Workplace Hazardous Materials Information System
WHO	World Health Organization