

Material Safety Data Sheet account to 91/155/EEC

ZESTRON

... ein Unternehmensbereich der Dr. O.K. Wack Chemie GmbH

Date printed: 09.08.04

VIGON EFM

Date revised: 09.08.04

Bunsenstrasse 6 : D- 85053 Ingolstadt, Germany
Telefon: +49 841 635-0; Fax: +49 841 635-40

1. Chemical product and company identification

- **Product information** Cleaning agent for High-Tech-Cleaning applications
- **Tradename** **VIGON EFM**
- **Manufacturer/Supplier:** Dr. O. K. Wack Chemie GmbH
Bunsenstr. 6, 85053 Ingolstadt, Tel.: 0049/841/635 0
- **Customer information:** R&D Dept. / Safety department
- **Emergency information:** During business hours: + + 49-841-635-23

2. Composition/Information on ingredients

Chemical characterisation: Special blend of organic solvents, halogene free.

-Hazardous ingredients:

EU-No.	CAS-No.	Name	% Weight	Symbol	R-Phrases
200-661-7	67-63-0	Propanol-2	5 - 15	F, Xi	R 11, 36, 67*
203-539-1	107-98-2	1-Methoxy-2-propanol	1 - 10		R 10*
265-151-9	64742-49-0	Naphta, hydrotreated light (aromate free)	70 - 90	F, Xn, N	R 11, 38, 51/53 R 65, 67*

*see paragraph 16

3. Hazards identification

Indications of danger (symbols): F / Highly flammable Xn / Harmful N / Dangerous for the environment

Risk phrases: The product is highly flammable. Harmful : may cause lung damage if swallowed.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Open container, any sources of ignition and static discharge may cause fire.

System of classification: The classification is in accordance with the actual EEC - Regulations.

4. First aid

- **General remarks:** Remove person from exposure. Remove contaminated clothing. Apply fresh air.
- **Inhalation:** Immediately remove to fresh air. If effects occur consult a physician.
- **Skin contact:** Immediately remove contaminated clothing. Wash contaminated areas with mild soap and water.
Consult a physician.
- **Eye contact:** Flush with excess amount of water for 15 min in the open eye lid. Use flowing water or shower.
Consult a physician.
- **Ingestion:** Do not induce vomiting. Consult a physician.
Notice for the physician : Observe danger of aspiration in the lung.

5. Fire fighting measures

- Extinguishing media:** Alcohol resistant foam, dry chemical, carbon dioxide, water spray.
Non suitable media: Water stream.
Special protective equipment: Self – contained breathing apparatus. In case of fire or heating formation of toxic gas possible.

6. Accidental release measures

- **Personal precautions:** Remove uninvolved persons. Enter the area only in solvent resistant shoes.
Wear protective gloves, goggles and chemical apron.
Supply good ventilation. Keep away ignition sources.

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- **Environmental protection measures:** Keep material out of sewers, storm drains, surface waters and soil.
- **Action to take for spills /leaks:** Soak up with liquid binding material (sand, kieselguhr). Fill it in the container with a rubber shovel. For disposal see No. 13.
In closed rooms supply a good ventilation. Use suitable disposal containers.

7. Handling and storage

- **Handling:**
- **Special precautions to be taken in handling:** Supply a sufficient ventilation or local exhaust system.
Keep container closed when not in use.
- **Special precautions to be taken for fire- and explosion protection:**
Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.
In case of fire-if possible- remove stock from vicinity of the fire. Otherwise spray container with water to prevent heating up. Heating leads to increased pressure and danger of bursting. Observe danger of reignition
- **Storage:** Store in cool place and in a collecting device. Keep container tightly closed. Store in accordance with local fire protection regulations.

8. Exposure controls/Personal protection

- **Components with applicable exposure limits:**

EU-No.	CAS-No.	Name of the component	%	Kind	Value	Dimens.
200-661-7	67-63-0	Propanol - 2	5 - 15	MAK	200	ml/m ³
203-539-1	107-98-2	1-Methoxy-2-Propanol	1 - 10	MAK	100	ml/m ³
	64742-49-0	Naphta, hydrotreated light (aromate free) / group 1	70 - 90		200	ml/m ³

- **Additional information:** These data are based on actual listings.
- **Personal protective measures:**
- **General applicable protective measures:** Supply a sufficient ventilation. Remove soiled clothing and wash it before reuse. Before breaks and after work wash the hands. Keep away from food, drinks and feeding stuff.
- **Respiratory protection:** Good general ventilation or local exhaust ventilation should be sufficient.
- **Hand protection:** Chloroprene- or Nitrile-gloves
- **Eye protection:** Chemical splash goggles

9. Physical and chemical properties

- **State :** liquid
- **Colour :** clear, colourless
- **Odour :** mild

	Value/range	Unit	Method
- Changes of state :			
- Freezing-point :	minus 20	°C	
	minus 4	°F	
- Boiling point/boiling range :	78-120	°C	
	172.4-248	°F	
- Flash point :	minus 12	°C	Abel-Pensky
	10,4	°F	(closed cup)
- Ignition temperature :	not determined		
- Explosion hazard :	Formation of explosive vapour - air mixtures possible.		
- Explosion limits :	lower: 1.00	% by volume	
	upper: 6,50	% by volume	
- Vapour pressure :	approx. 77	mbar	
- Density :	0.71 +/-0.02	g/cm ³	DIN 51757 ISO / R 758 - 1968
- Solubility in water :	not soluble		
- pH - Value (10 g/l) :	not applicable		DIN 19268
- Viscosity:(20°C) :	0.61-0.75	cSt	DIN 51 562 ISO 3105

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10. Stability and reactivity

- **Conditions to be avoided:** No decomposition if used as recommended.
- **Substances to be avoided:** Strong oxidizing agents.
- **Hazardous decomposition products:** No decomposition up to boiling point.
In case of fire, CO and CO₂ can be developed.

11. Toxicological information

- Skin contact :** Irritating to skin.
- Eye contact :** Eye irritation possible. No permanent damage of the eye known.
- Ingestion:** No data are available about oral toxicity. The values of the constituents are higher than LD 50 (oral Rat) : 2000 mg/kg.
Harmful : may cause lung damage if swallowed.
- Inhalation:** Vapours may cause drowsiness and dizziness.

12. Ecological information

Water hazardous liquid. WGK (Germany) : 1 (Self classified based on specification of raw materials)

13. Disposal considerations

Classified in accordance to EU - Regulations 75/442/EWG and 91/689/EWG verified by EU - Regulations 2001/118/EG and 2001/119/EG (valid 01.01.2002) :

- **Disposal No./EWC - Code :** 140603 / other solvents and solvents mixture
- **Uncleaned containers:** Disposed as waste according to the local regulations

14. Transport information

Ground transportation ADR/RID :

- **ADR/RID - Class:** 3 Hydrocarbons, liquid, n.o.s., (cont. Heptanes, Octanes)
- **UN-Number:** 3295 - **Packaging Classif.:** II
- **Item :** F1 - **Hazard label :** 3

Sea transportation IMDG - Code :

- **IMDG - Classif.:** 3 Hydrocarbons, liquid, n.o.s.
- **UN-Number:** 3295
- **Packaging Classif.:** II
- **EMS-Number:** F-E, S-D

Air transportation ICAO - TI and IATA - DGR :

- **ICAO/IATA-Classif.:** 3 Hydrocarbons, liquid, n.o.s.
- **UN-ID-Number:** 3295 Pkg.Instr. 305 / 5 I
- **Packaging classification:** II Y 305 / 1 I
307 / 60 I (Cargo aircraft only)

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15. Regulatory information

- EEC labelling: Symbols : Xn / Harmful
F / Highly flammable
N / Dangerous for the environment

- Labelled hazardous components : Hydrocarbons C₆ - C₈

- R-Phrases:

R 11 : Highly flammable.
R 38 : Irritating to skin.
R 65 : Harmful : may cause lung damage if swallowed.
R 67 : Vapours may cause drowsiness and dizziness.
R 51 / 53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- S-Phrases:

S 7 / 9 : Keep container tightly closed and in a well - ventilated place.
S 16 : Keep away from sources of ignition - No smoking.
S 28 : After contact with skin, wash immediately with plenty of water.
S 33 : Take precautionary measures against static discharges.
S 62 : If swallowed do not induce vomiting : seek medical advice immediately and show this container or label.
S 29 / 56 : Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

16. Additional information

*Annex of R-phrases in 2 :

R 10 : Flammable.
R 11 : Highly flammable.
R 36 : Irritating to eyes.
R 38 : Irritating to skin.
R 65 : Harmful : may cause lung damage if swallowed.
R 67 : Vapours may cause drowsiness and dizziness.
R 51 / 53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The contents and format of this MSDS are in accordance with EEC Commission Directive 91 / 155 / EEC.

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