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SAFETY DATA SHEET - according 93 / 112 EGPacking: 260g Cat-No. 200 17 014 Packing: 1 kg Cat-No. 070 27 010

COMPUOND NAME: FOMBLIN® Y LVAC

# **COMPANY IDENTIFICATION**

Company: AUSIMONT S.p.A. AUSIMONT (Germany) GmbH

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# 1) COMPOUND IDENTIFICATION

Compound Name: **FOMBLIN**<sup>®</sup> **Y** 

Grades: L VAC 06/6, L VAC 14/6, L VAC 16/6, L VAC 25/6

Chemical Name: Perfluoropolyethers
Molecular Weight: 1800 - 3300 g / mol

Structural Formula:  $CF_3 - (O - CF - CF_2)_n - (O - CF_2)_m - O - CF_3$ 

CF<sub>3</sub>

CAS Name: 1 - Propene, 1,1,2,3,3,3 - hexafluoro -, oxidized, polymd.

CAS Number: 69991 – 67 – 9

EEC Number: exempted not assigned ELINCS Number: not assigned

### 2) COMPOSITION / INFORMATION ON INGREDIENTS

#### **Composition of the preparation**

Substances with established exposure limits or classifiable as dangerous according to EC Directive 67/548 and following amendments in concentration equal or higher than that reported in EC Directive 88/379 item 3 sect. 6

Name Conc. CAS N° Symbol Risk Phrases

none

# 3) HAZARDS IDENTIFICATION

#### **Adverse Effects for the Human Health**

The product, when properly handled, according to the good working and hygienic practices, is not dangerous for the human health.

#### **Environmental effects**

The product, when properly handled, according to the good working and hygienic practices, is not dangerous for the environment.

#### **Specific hazards**

Harmful effects for health and environment may occur in case of thermal decomposition, due to heating or fire, for the emission of toxic and corrosive gases.

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# 4) MEDICAL INFORMATION – FIRST AID

# Symptomatology following Exposure

Eye contact Redness
Skin contact Redness

**Ingestion** Abdominal pain, nausea, vomit.

#### **First Aid Measures**

#### Eye contact

Wash with plenty of water for at least 15 minutes.

#### **Skin contact**

Wash with water and soap.

# **Ingestion**

Give some glasses of water to drink. Induce vomiting. Seek medical advice in case of persistent pain.

# 5) FIRE FIGHTING MEASURES

#### **Specific Hazards**

The product is not flammable and not explosive. The heating of the product may cause decomposition with emission of toxic and corrosive vapours.

## **Specific methods**

Stay upwind and at safety distance from flames. In case of surrounding fire, remove the containers, when possible to do so in safe conditions. In case of fire keep containers cool by spraying with water.

# **Extinguishing Media**

Water, powders, foams, chemicals, CO<sub>2</sub>.

### **Protection of fire-fighters**

Self-contained breathing apparatus. Protective clothing for skin and eyes against corrosive vapuors.

# 6) ACCIDENTAL RELEASE MEASURES

#### **Personal precautions**

Stop the release as soon as possible, in safe conditions. Avoid the contact of the released product with glowing surfaces and flames. Possible risk only in case of thermal decomposition of the released product.

#### **Environmental Precautions**

Avoid the discharge of the released product in sewage systems, in surface and underground waters, in the soil.

#### Methods for cleaning up

Absorb the released liquid with earth, sand and sawdust and collect it in suitable containers for disposal.

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# 7) HANDLING AND STORAGE MEASURES

### **Handling** Precautions

Avoid heating the product above its decomposition temperature (290 °C).

#### **Technical measures**

Provide working areas with adequate ventilation systems and with water-wash facilities (eye-bath and emergency showers).

#### **Storage Storage conditions**

Keep away from heat sources. Keep away from combustible and explosive materials. Keep away from incompatible substances (see section 10).

#### **Packaging**

Product usually storage in polyethylene containers.

**Recommended materials:** Metal, plastic, glass.

Non suitable materials

Not lined metals are unsuitable because of slow corrosion.

# 8) EXPOSURE CONTOL/PERSONAL PROTECTION

#### **Exposure Limits**

Only threshold limits (ACGIH 2002) of by - products from thermal decomposition are available:

**HF** TLV / CEILING =  $2.6 \text{ mg / m}^3 = 3 \text{ ppm}$ **COF<sub>2</sub>** TLV / STEL =  $13.5 \text{ mg / m}^3 = 5 \text{ ppm}$ 

#### **Personal Protective Equipment**

### **Respiratory protection**

Not necessary in normal use, self - contained breathing apparatus in case of fire.

**Eye protection** Safety goggles **Hand protection** Rubber gloves

**Skin and Body protection** Worksuit or rubber apron

**Hygiene measures** Do not drink, eat and smoke during handling.

### 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid
Colour: colourless
Odour: odourless
Melting point: not available

Boiling Point: > 270 °C at 760 mmHg

Flashpoint: not flammable Explosion properties: not explosive Oxidizing properties: not oxidizer

Vapour pressure:  $10^{-5} - 10^{-7}$  mmHg at 20 °C

Kinematic viscosity: 50 - 300 cSt

Density: 1,88 - 1,90 g/ml at  $20 \,^{\circ}\text{C}$ 

Solubility in Water: not soluble

Solubility in org. Solvents: soluble in fluorinated solvents

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#### 10) STABILITY AND REACTIVITY

# **Stability**

The product is stable in normal conditions of use and storage.

#### **Conditions to avoid**

Avoid heating the product above 290 °C. Avoid contact with flames.

# Materials to avoid

Strong alkaline compounds (alkaline hydroxides, ammonia, non aqueous alkalis). Lewis acids (AlClas, SbF<sub>5</sub>, CoF<sub>3</sub>) above 100 °C. Powered magnesium, aluminium and their alloys above 100 °C

#### **Hazardous decomposition products**

The product may decompose at temperature above 290 °C with emission of HF and COF<sub>2</sub>, which are toxic and corrosive gases; metals promote the decomposition.

#### 11) TOXICOLOGICAL INFORMATION

#### **Penetrations Routes**

Contact or ingestion of the liquid product. Inhalation of gases from thermal decomposition.

#### **Adverse Effects for the Human Health**

Delayed and/or immediate effects after short and/or prolonged exposure:

**Acute toxicity** no known effect

# **Local effects / irritation**

Not irritant; decomposition products may cause severe irritation to skin, power eye and mucosae.

Sensitization no known effect **Chronic Toxicity** no known effect Carcinogenicity no known effect no known effect Mutagenicity **Reproduction toxicity** no known effect

### **Experimental toxicological data**

Sensitisation skin

$LD_{50}$	oral	> 2000  mg / Kg	Species: rat
NOEL	oral	1000  mg / Kg / day / (28d)	Species: rat
$LD_{50}$	dermal	< 2000  mg / Kg	Species: rat
Irritation	skin	non irritant	Species: rabbit
	eye	non irritant	Species: rabbit

non sensitising Mutagenicity Ames test Species: --negative (in vitro and in vivo)

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Species: Guinea pig



# 12) ECOTOXICOLOGICAL INFORMATION

**Environmental effects** 

Mobility no available data
Persistence / degradability no available data
Bioaccumulation no available data
Ecostability data no available data

**Ecotoxicity data** 

 $LC_{50}$  fish > max. solubility of product in water Species: Rainbow trout  $EC_{50}$  crustaceans > max. solubility of product in water Species: Daphnia magna

EC<sub>50</sub> bacteria > max. solubility of product in water Species: ----

**EVALUATION** 

Use the product according to the good working practice, avoiding polluting the environment

# 13) DISPOSAL CONSIDERATIONS

#### Waste treatment

Send the waste product to thermal destruction, using high-temperature incinerators designed to burn fluorine compounds.

# **Packaging treatment**

Reuse, when possible, the containers, after thorough washing. Send the waste containers to authorized landfills, according to local laws and regulations.

# 14) TRANSPORT INFORMATION

#### **Specific Hazards**

Product not dangerous for transportation.

# **Packaging information**

Product usually shipped in polyethylene containers of different capacities (drums, jerricans, tanks).

# **International Transport classification**

U.N. Number not assigned
Packaging group not assigned
Road Transportation (ADR) not classified
Rail Transportation (RID / RMP) not classified
Sea Transportation (IMDG / IMO) not classified
Air Transportation (ICAO / IATA) not classified

# 15) REGULATORY INFORMATION

### **CEE Regulations (Directive 67 / 548 and following amendments)**

Classification

Classification type not required

Hazard class none

Labeling

Trade Name FOMBLIN® Y

Grades: L VAC 06/6, L VAC 14/6, L VAC 16/6, L VAC 25/6

Hazard Symbol none Risk Phrases (R) none Safety Phrases(S) none

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# 16) OTHER INFORMATIONS

none

# **BIBLIOGRAPHY**

AUSIMONT internal data

# Safety Data Sheet according EEC Directive 93 / 112

The information given in this safety data sheet is for safety purpose only. It is given in good faith and based on the best knowledge and experience of the company at the date of issuing. The company is not responsible for damages caused by the use of the product in applications for which it was not intended or for conditions of use outside its control.

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