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## Material Safety Data Sheet

### 1. Identification of chemical product

Product Name COBALT(II) 2-ETHYLHEXANOATE; preparation

Other names: cobaltous accelerator, octanone of cobalt, cobaltous siccativ.

Added to unsaturated polyester resin, determine the speed of polymerisation process.

Chemical formula:  $(CH_3(CH_2)_3CH(C_2H_5)CO_2)_2Co$

We use 0,01% Co, i.e. for 1 kg of resin it is necessary to add \*5,0 ml solution of cobaltous accelerator 2%

For polymerisation is used initiator OXYMEK M-60

### 2 - Composition/Information on Ingredients

2% Co      12% cobaltous accelerant CAS[ 136-52-7]  
8% lacker spirit:

contains light spirit

CAS[8006-61-9]

WE-232-349-1

R11 - Highly flammable

R65 - Harmful: may cause lung damage if swallowed  
and contains mixt of: trimethylbenzene  
ethyltoluene, propylbenzene and other izomeres

R10 - Flammable

R20 - Harmful by inhalation

R36/37/38 - Irritating to eyes, respiratory system and  
skin

R51/53 -Toxic to aquatic organisms, may cause long  
term adverse effects in the aquatic environment  
80% styrene CAS [100-42-5];

R10-Flammable

R20-Harmful by inhalation.

R36/38- Irritating to eyes and skin

### 3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Flammable. Irritating to eyes, respiratory system and skin.  
May cause sensitization by skin contact.

#### 4 - First Aid Measures

##### **AFTER INHALATION**

*If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.*

##### **AFTER SKIN CONTACT**

*In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.*

##### **AFTER EYE CONTACT**

*In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.*

##### **AFTER INGESTION**

*If swallowed, wash out mouth with water provided person is conscious. Call a physician.*

#### 5 - Fire Fighting Measures

##### **EXTINGUISHING MEDIA**

*Suitable: Carbon dioxide. Dry chemical powder.*

*Unsuitable: Do not use water.*

##### **SPECIAL RISKS**

*Specific Hazard(s): Emits toxic fumes under fire conditions.*

##### **SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS**

*Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.*

#### 6 - Accidental Release Measures

##### **PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL**

*Evacuate area. Shut off all sources of ignition. Use nonsparking tools.*

##### **PROCEDURE(S) OF PERSONAL PRECAUTION(S)**

*Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.*

##### **METHODS FOR CLEANING UP**

*Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.*

#### 7 - Handling and Storage

##### **HANDLING**

*Directions for Safe Handling: Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not breathe vapor.*

##### **STORAGE**

*Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame.*

#### 8 - Exposure Controls / Personal Protection

## ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath. Use nonsparking tools.

## GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

## 9. Physic-chemical properties

- \* navy colour liquid, sealing wax odour
- \* boiling temperature: 135<sup>0</sup>C
- \* vapour tension: 3 kPa
- \* does not dissolve in water; dissolve in styrene, toluene and white spirit
- \* density: 0,920 g/cm<sup>3</sup>
- \* ignition temperature: 35<sup>0</sup>C (lacker spirit)
- \* spontaneous ignition temperature: 490<sup>0</sup>C
- \* explosion limit: 1,1% - 6,1%

## 10. Stability and reactivation

### STABILITY

Stable: Stable.

Materials to Avoid: Acids, Oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Nature of decomposition products not known.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

## 11. Toxicological information

### Toxic components:

Light spirit [CAS 8006-61-9]

CL <sub>50</sub> (inhalation, rat)	105[g/m <sup>3</sup> /2h]
DL <sub>50</sub> (inhalation, guinea-pig)	71-91 [g/m <sup>3</sup> /2h]
DL <sub>50</sub> (inhalation, mouse)	40-111.5 [g/m <sup>3</sup> /24h]

1,2,4-trimethylbenzene [CAS 95-63-6]

DL <sub>LO</sub> (orally, rat)	1752 mg/kg
DL <sub>LO</sub> (to abdominal cavity, guinea-pig)	1788mg/kg
CL <sub>50</sub> (inhalation, rat)	0,018mg/dm <sup>3</sup> /4h

Styrene [CAS 100-42-5]

LD <sub>50</sub> (orally, rat)	5000 mg/kg
LD <sub>50</sub> (inhalation, rat)	24000 mg/m <sup>3</sup> (4h)
LCL <sub>0</sub> (man, inhalation)	43000 mg/m <sup>3</sup>
TCL <sub>0</sub> (man, inhalation)	2600 mg/m <sup>3</sup>

COBALT(II) 2-ETHYLHEXANOATE – no data

### SENSITIZATION

Skin: May cause allergic skin reaction.

### SIGNS AND SYMPTOMS OF EXPOSURE

Can cause CNS depression. Exposure can cause: Headache.

Dizziness. Overexposure to cobalt compounds may cause nose and throat irritation and an allergic skin rash. If ingested, may cause vomiting, diarrhea, and a sensation of hotness. Excessive

inhalation and/or ingestion of cobalt salts may affect the kidneys, lungs, and thyroid.

Lung irritation, chest pain, and edema which may be fatal. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### ROUTE OF EXPOSURE

*Skin Contact: Causes skin irritation.*

*Skin Absorption: May be harmful if absorbed through the skin.*

*Eye Contact: Causes eye irritation.*

*Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.*

*Material is irritating to mucous membranes and upper respiratory tract*

*Ingestion: May be harmful if swallowed.*

#### **TARGET ORGAN INFORMATION**

**Kidneys. Nerves. Bone marrow. Thyroid. Heart. Pancreas**

### **12. Ecological information**

*Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.*

*Lacker spirit [CAS 8006-61-9]*

*Toxic to fish 100-159[mg/l]*

*Toxic to plankton 55-120[mg/l]*

*Styrene[CAS 100-42-5]:*

*Test Type: LC50 Fish*

*Species: Leuciscus idus*

*Time: 48 h*

*Value: 17 - 66 mg/l*

*Test Type: EC50 Daphnia*

*Species: Daphnia magna*

*Time: 24 h*

*Value: 182 mg/l*

*Styrene [CAS 100-42-5] in air*

*20 [mcg/m<sup>3</sup>]- max. during 30 min.*

*5 [mcg/m<sup>3</sup>]-max. during 24h*

*2 [mcg/m<sup>3</sup>]-max. during 1 year*

### **13 - Disposal Considerations**

#### **SUBSTANCE DISPOSAL**

*Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.*

### **14. Transport information**

**RID/ADR**

**UN:1993; FLAMMABLE LIQUID N.O.S.; 3; III**

**F1**

**IMDG**

**UN#: 1993**

**Class: 3**

**PG: III**

**Proper Shipping Name: FLAMMABLE LIQUID N.O.S.**

**IATA**

UN#: 1993

Class: 3

PG: III

Proper Shipping Name: FLAMMABLE LIQUID N.O.S.

#### 15. Legislative information

Dz. U. Nr 11, pos. 84 11.01.2001

Dz. U. Nr 140, pos. 1171 3.07. 2002

Dz. U. Nr 217, pos. 1833 29.11.2002

Dz. U. Nr 194, poz. 1629 23.11.2002

Dz. U. Nr 112, poz. 1206 27.09.2002

Dz. U. Nr 142, poz. 1194 14.08.2002

Required symbol:

**X**

Xn Harmful

R-PHRASES

R10-Flammable

R36/37/38-Irritating to eyes, respiratory system and skin

R40- Possible risk of irreversible effects

R65-Harmful: may cause lung damage if swallowed

S-PHRASES

S16-Keep away from sources of ignition-No smoking

S36/37/38-Wear suitable protecting clothes, gloves and eye/face protection

S45-In case of accident if you feel unwell, seek medical advice immediately (show label where possible)

S50-Do not mix with peroxides

#### 16. OTHER INFORMATION

Hazardous chemical has submitted in 21.08.98 and registered under the No. 322/99 dated 17.05.99

Characteristic card of hazardous chemical concern accelerators 2%.

Last modification – February 2004 change of classification

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