

# MATERIAL SAFETY DATA SHEET

according to 91/155 EC

1228700

Reviewed on: 17.05.2004

Printing date: 17.05.2004

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- *Trade name*  
AVKOTE ACTIVATED HADENER EA9-2243
- Article number:  
EA90002243
- Application of the substance / the preparation  
Hardening agent/ Curing agent
- *Manufacturer/Supplier:*  
AVKO Limited  
Hamble Court Business Park, Hamble Lane  
Hamble, Southampton, SO31 4QJ  
Tel. 00 44 23 80 455 855 Fax. 00 44 23 80 456 785
- *Further information obtainable from:*  
Product safety department.
- *Information in case of emergency:*  
Emergency telephone: Office Hours: Environmental Protection Dept. Fire Brigade. Out of Hours: Fire Brigade

## 2 Composition/information on ingredients

- **Chemical characterization**
- *Description:*  
Mixture of substances listed below with nonhazardous additions.
- *Dangerous components:*

| CAS NO.   | Description Index R-phrases                                    | %            |
|-----------|--|--------------|
| 67-63-0   | <i>propan-2-ol</i><br>EINECS: 200-661-7<br>F Xi<br>11-36-67    | 5,00- 12,50  |
| 108-10-1  | <i>4-methylpentan-2-one</i><br>EINECS: 203-550-1<br>F<br>11-66 | 5,00- 12,50  |
| 108-88-3  | <i>toluene</i><br>EINECS: 203-625-9<br>F Xn<br>11-20           | 5,00- 12,50  |
| 71-36-3   | <i>butanol</i><br>EINECS: 200-751-6<br>Xn<br>10-22-37/38-41-67 | 12,50- 25,00 |
| 1330-20-7 | <i>xylene (mix)</i><br>EINECS: 215-535-7<br>Xn<br>10-20/21-38  | 12,50- 25,00 |

## 3 Hazards identification

- **Hazard description:**



F Highly flammable



Xn Harmful

- **Information concerning particular hazards for human and environment:**

R 11 Highly flammable.  
R 20/21 Harmful by inhalation and in contact with skin.  
R 37/38 Irritating to respiratory system and skin.  
R 41 Risk of serious damage to eyes.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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## 4 First-aid measures

- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air or oxygen; call for doctor.  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Do not induce vomiting; call for medical help immediately.

## 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:**  
Water with full jet
- **Special hazards caused by the substance, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:**  
Mount respiratory protective device.  
Do not inhale explosion gases or combustion gases.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

## 6 Accidental release measures

- **Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or any water course.  
Prevent seepage into sewage system, workpits and cellars.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Take note of emission threshold.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store only in the original receptacle.
- **Information about storage in one common storage facility:**  
Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.

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|                  |   |
|------------------|---|
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|------------------|---|

|  |                              |
|--|------------------------------|
| Protect from heat and direct sunlight. | <i>(continued of page 2)</i> |
|--|------------------------------|

## 8 Exposure controls/personal protection

- **Ingredients with limit values that require monitoring at the workplace:**

| CAS No.    | Designation of material |      |       |
|------------|-------------------------|------|-------|
| 67-63-0    | propan-2-ol             |      |       |
| <b>OEL</b> |                         |      |       |
|            | Short-term value        | 1250 | mg/m3 |
|            |                         | 500  | ppm   |
|            | Long-term value         | 999  | mg/m3 |
|            |                         | 400  | ppm   |
| 108-10-1   | 4-methylpentan-2-one    |      |       |
| <b>OEL</b> |                         |      |       |
|            | Short-term value        | 416  | mg/m3 |
|            |                         | 100  | ppm   |
|            | Long-term value         | 208  | mg/m3 |
|            |                         | 50   | ppm   |
|            | <b>Sk Bmg</b>           |      |       |
| 108-88-3   | toluene                 |      |       |
| <b>OEL</b> |                         |      |       |
|            | Short-term value        | 574  | mg/m3 |
|            |                         | 150  | ppm   |
|            | Long-term value         | 191  | mg/m3 |
|            |                         | 50   | ppm   |
|            | <b>Sk</b>               |      |       |
| 71-36-3    | butanol                 |      |       |
| <b>OEL</b> |                         |      |       |
|            | Short-term value        | 154  | mg/m3 |
|            |                         | 50   | ppm   |
|            | <b>Sk</b>               |      |       |
| 1330-20-7  | xylene (mix)            |      |       |
| <b>OEL</b> |                         |      |       |
|            | Short-term value        | 662  | mg/m3 |
|            |                         | 150  | ppm   |
|            | Long-term value         | 441  | mg/m3 |
|            |                         | 100  | ppm   |
|            | <b>Sk</b>               |      |       |

- **Additional information:**  
The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.  
Do not eat or drink while working.  
Be sure to clean skin thoroughly after work and before breaks.
- **Respiratory protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Suitable respiratory protective device recommended.
- **Protection of hands:** Protective gloves Impervious gloves
- **Eye protection:** Safety glasses Tightly sealed goggles
- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

|                                     |              |
|-------------------------------------|--------------|
| <b>Appearance</b>                   |              |
| <b>Form:</b>                        | Liquid       |
| <b>Colour:</b>                      | Colourless   |
| <b>Odour:</b>                       | Solvent-like |
| <b>Change in condition</b>          |              |
| <b>Melting point/Melting range:</b> | 0,0 °C       |

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|   |   |
|---|---|
| <b>PRODUCT :</b> FEYCOTECT ACTIVATED HADENER EA9-2243 |   |
| <i>(continued of page 3)</i>                          |   |
| <b>Boiling point/Boiling range:</b>                   | 82,0 °C   |
| <b>Flash point:</b>                                   | 5,0 °C  |
| <b>Ignition temperature:</b>                          | 340,00 °C   |
| <b>Self-igniting:</b>                                 | Product is not selfigniting.  |
| <b>Danger of explosion:</b>                           | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| <b>Explosion limits:</b>                              |   |
| <b>Lower:</b>   | 1,10 Vol %  |
| <b>Upper:</b>   | 12,00 Vol %   |
| <b>Vapour pressure:</b>                               | at 20,00 °C 6,70 mbar at 50,00 °C 124,00 mbar   |
| <b>Density:</b>                                       | 0,9300 g/cm3  |
| <b>Solubility in / Miscibility with water:</b>        | Not miscible or difficult to mix.   |
| <b>Viscosity:</b>                                     |   |
| <b>Kinematic:</b>                                     | at 20,00 °C 50,00 s DIN 4 mm  |
| <b>Solvent content:</b>                               |   |
| <b>Organic solvents:</b>                              | 65,00 %   |
| <b>Solids content:</b>                                | 37,40 %   |

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Dangerous decomposition products:**  
No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**
  - 67-63-0 propan-2-ol**  
Oral, LD50: 4570 \*\*\* (rat)  
Dermal, LD50: 13400 \*\*\* (Rabbit)  
Inhalative, LC50/4h: 30 \*\*\* (rat)
  - 108-10-1 4-methylpentan-2-one**  
Oral, LD50: 2100 \*\*\* (rat)  
Dermal, LD50: 16000 \*\*\* (Rabbit)  
Inhalative, LC50/4h: 8,3-16,6 \*\*\* (rat)
  - 108-88-3 toluene**  
Oral, LD50: 5000 \*\*\* (rat)  
Dermal, LD50: 12124 \*\*\* (Rabbit)  
Inhalative, LC50/4h: 5320 \*\*\* (mouse)
  - 71-36-3 butanol**  
Oral, LD50: 790 \*\*\* (rat)  
Dermal, LD50: 3400 \*\*\* (Rabbit)  
Inhalative, LC50/4h: 8000 \*\*\* (rat)
  - 1330-20-7 xylene (mix)**  
Oral, LD50: 8700 \*\*\* (rat)  
Dermal, LD50: 2000 \*\*\* (Rabbit)  
Inhalative, LC50/4h: 6350 \*\*\* (rat)
- **Primary irritant effect:**
- on the skin:  
Irritant to skin and mucous membranes.
- on the eye:  
Strong irritant with the danger of severe eye injury.
- **Sensitization:**  
No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful.

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|------------------|---|
| <b>PRODUCT :</b> | <b>FEYCOTECT ACTIVATED HADENER EA9-2243</b> |
| Irritant.        | <i>(continued of page 4)</i>                |



## 12 Ecological information

- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (#): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.

## 13 Disposal considerations

- **Product:**
- **Waste disposal key:**  
55508 Paint material  
waste disposal indications  
special waste burn
- **Waste disposal key (CH):**  
1620  
Painting, lacquer and adhesive wastes with organic phase (with solvents)
- **Uncleaned packaging:**
- **Recommendation:**  
Disposal must be made according to official regulations.

## 14 Transport information

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• <b>Land transport ADR/RID (cross-border)</b></li> </ul> |   |
| <b>ADR/RID class:</b>  | 3 Flammable liquids.  |
| <b>Danger code (Kemler):</b>   | 30  |
| <b>UN-Number:</b>  | 1263  |
| <b>Packaging group:</b>  | III   |
| <b>Hazard label</b>  | <div style="display: flex; align-items: center; justify-content: center;"> <span style="margin-right: 5px;">3</span>  </div> |
| <b>Description of goods:</b>   | 1263 PAINT RELATED MATERIAL, SPECIAL PROVISION 640H   |
| <ul style="list-style-type: none"> <li>• <b>Maritime transport IMDG:</b></li> </ul>              |   |
| <b>IMDG Class:</b>   | 3   |
| <b>UN Number:</b>  | 1263  |
| <b>Label</b>   | <div style="display: flex; align-items: center; justify-content: center;"> <span style="margin-right: 5px;">3</span>  </div> |
| <b>Packaging group:</b>  | III   |
| <b>EMS Number:</b>   | F-E,S-E   |
| <b>Proper shipping name:</b>   | PAINT RELATED MATERIAL  |
| <ul style="list-style-type: none"> <li>• <b>Air transport ICAO-TI and IATA-DGR:</b></li> </ul>   |   |
| <b>ICAO/IATA Class:</b>  | 3   |
| <b>UN/ID Number:</b>   | 1263  |

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**Label****Packaging group:**

III

**Proper shipping name:**

PAINT RELATED MATERIAL

## 15 Regulatory information

- **Labelling according to EU guidelines:**

- The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**



F Highly flammable



Xn Harmful

- **Hazard-determining components of labelling:**

butanol /xylene (mix)

- **Risk phrases:**

- R 11 Highly flammable.
- R 20/21 Harmful by inhalation and in contact with skin.
- R 37/38 Irritating to respiratory system and skin.
- R 41 Risk of serious damage to eyes.

- **Safety phrases:**

- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S 51 Use only in well-ventilated areas.
- S 9 Keep container in a well-ventilated place.
- S 16 Keep away from sources of ignition - No smoking.
- S 29 Do not empty into drains.
- S 33 Take precautionary measures against static discharges.
- S 60 This material and its container must be disposed of as hazardous waste.

- **National regulations:**

- **Classification according to VbF:**

AI

- **Technical instructions (air):**

- **Class Share in %**
- III 35 , 30
- II 27 , 30

- **Waterhazard class:**

Water hazard class 2 (#): hazardous for water.Self-assessment

**Further information**

BAGT-Number

619003

Swiss class of toxicity

3

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## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant R-phrases

- |         |   |
|---------|---|
| R 10    | Flammable.  |
| R 11    | Highly flammable.                                     |
| R 20/21 | Harmful by inhalation and in contact with skin.       |
| R 20    | Harmful by inhalation.                                |
| R 22    | Harmful if swallowed.                                 |
| R 36    | Irritating to eyes.                                   |
| R 66    | Repeated exposure may cause skin dryness or cracking. |
| R 37/38 | Irritating to respiratory system and skin.            |
| R 38    | Irritating to skin.                                   |
| R 67    | Vapours may cause drowsiness and dizziness.           |
| R 41    | Risk of serious damage to eyes.                       |

- **Department issuing MSDS:**

Environment protection department.