1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Product name: EC-273_ACTIVATOR FOR 10P20-44
Synonym(s): 10P20-44 ACTIVATOR • AKZO NOBEL EC-273 • EC 273 • EC-273 - PRODUCT CODE

1.2 Uses and uses advised against
Use(s): ACTIVATOR • AEROSPACE APPLICATIONS • COATING • TWO COMPONENT EPOXY COATING

1.3 Details of the supplier of the safety data sheet
Supplier name: AKZO NOBEL CAR REFINISHES PTY LTD
Address: 269 Williamstown Rd, Port Melbourne, VIC, Australia, 3207
Telephone: (03) 9646 5988
Fax: (03) 9644 1777
Email: ANACMSDS@akzonobel.com
Website: http://www.akzonobel.com/aac/

1.4 Emergency telephone number(s)
Emergency: 1800 680 071

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA
GHS Classification(s):
- Flammable Liquids: Category 2
- Acute Toxicity: Oral: Category 4
- Skin Corrosion/Irritation: Category 1C
- Skin Sensitisation: Category 1
- Acute Toxicity: Inhalation: Category 4
- Toxic to Reproduction: Category 2
- Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2
- Aquatic Toxicity (Chronic): Category 2

2.2 Label elements
Signal word: DANGER

Hazard statement(s):
- H225: Highly flammable liquid and vapour.
- H302: Harmful if swallowed.
- H314: Causes severe skin burns and eye damage.
- H317: May cause an allergic skin reaction.
- H332: Harmful if inhaled.
- H361: Suspected of damaging fertility or the unborn child.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H411: Toxic to aquatic life with long lasting effects.

Prevention statement(s):
- P202: Do not handle until all safety precautions have been read and understood.
- P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
**Product name**

**EC-273_ACTIVATOR FOR 10P20-44**

**P241**
Use explosion-proof electrical/ventilating/lighting equipment.

**P243**
Take precautionary measures against static discharge.

**P260**
Do not breathe dust/fume/gas/mist/vapours/spray.

**P264**
Wash thoroughly after handling.

**P270**
Do not eat, drink or smoke when using this product.

**P271**
Use only outdoors or in a well-ventilated area.

**P272**
Contaminated work clothing should not be allowed out of the workplace.

**P273**
Avoid release to the environment.

**P280**
Wear protective gloves/protective clothing/eye protection/face protection.

**Response statement(s)**

**P301 + P330 + P331**
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**P303 + P361 + P353**
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

**P304 + P340**
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

**P305 + P351 + P338**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**P308 + P313**
IF exposed or concerned: Get medical advice/ attention.

**P310**
Immediately call a POISON CENTER or doctor/physician.

**P311**
Specific treatment is advised - see first aid instructions.

**P313**
Collect spillage.

**Storage statement(s)**

**P403 + P235**
Store in a well-ventilated place. Keep cool.

**P405**
Store locked up.

**Disposal statement(s)**

**P501**
Dispose of contents/container in accordance with relevant regulations.

### 2.3 Other Hazards

No information provided.

---

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### 3.1 Substances / Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS number</th>
<th>EC number</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>203-625-9</td>
<td>25 - 50%</td>
</tr>
<tr>
<td>BENZYL ALCOHOL</td>
<td>100-51-6</td>
<td>202-859-9</td>
<td>10 - 25%</td>
</tr>
<tr>
<td>2,4,6-TRI(DIMETHYLAMINOMETHYL)PHENOL</td>
<td>90-72-2</td>
<td>202-013-9</td>
<td>2.5 - 10%</td>
</tr>
<tr>
<td>N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE</td>
<td>1760-24-3</td>
<td>217-164-6</td>
<td>2.5 - 10%</td>
</tr>
<tr>
<td>M-PHENYLENEBIS(METHYLAMINE)</td>
<td>1477-55-0</td>
<td>216-032-5</td>
<td>1 - 2.5%</td>
</tr>
<tr>
<td>TRI-METHYLHEXAMETHYLENEDIAMINE</td>
<td>25620-58-0</td>
<td>247-134-8</td>
<td>1 - 2.5%</td>
</tr>
<tr>
<td>NONYL PHENOL</td>
<td>25154-52-3</td>
<td>246-672-0</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>FORMALDEHYDE POLYMER WITH BENZENE, HYDROGENATED</td>
<td>135108-88-2</td>
<td>603-894-6</td>
<td>10 - 25%</td>
</tr>
</tbody>
</table>

---

### 4. FIRST AID MEASURES
Product name: EC-273_ACTIVATOR FOR 10P20-44

No information provided.

No information provided.

Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
No information provided.

5.2 Special hazards arising from the substance or mixture
No information provided.

5.3 Advice for firefighters
No information provided.

5.4 Hazchem code

- 3W
  - Alcohol Resistant Foam is the preferred firefighting medium. Else use;
  - W
    - Normal Foam (protein based foam that is not alcohol resistant).
  - Risk of violent reaction or explosion. Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
No information provided.

6.2 Environmental precautions
No information provided.

6.3 Methods of cleaning up
No information provided.

6.4 Reference to other sections
No information provided.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
No information provided.

7.2 Conditions for safe storage, including any incompatibilities
No information provided.

7.3 Specific end use(s)
No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>SWA (AUS)</td>
<td>1</td>
<td>1.2</td>
<td>2</td>
<td>2.5</td>
</tr>
</tbody>
</table>

This report was compiled based on the SDS dated 21 Sep 2012
Product name: EC-273_ACTIVATOR FOR 10P20-44

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reference</th>
<th>TWA (ppm)</th>
<th>TWA (mg/m³)</th>
<th>STEL (ppm)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>SWA (AUS)</td>
<td>50</td>
<td>191</td>
<td>150</td>
<td>574</td>
</tr>
<tr>
<td>m-Xylene-a,a'-diamine</td>
<td>SWA (AUS)</td>
<td>--</td>
<td>0.1</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Biological limits:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Reference</th>
<th>Determinant</th>
<th>Sampling time</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLUENE</td>
<td>ACGIH BEI</td>
<td>o-Cresol in urine</td>
<td>End of shift</td>
<td>0.02 mg/L</td>
</tr>
<tr>
<td></td>
<td>ACGIH BEI</td>
<td>Toluene in urine</td>
<td>End of shift</td>
<td>0.03 mg/L</td>
</tr>
<tr>
<td></td>
<td>ACGIH BEI</td>
<td>Toluene in blood</td>
<td>Prior to last shift of</td>
<td>0.02 mg/L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>workweek</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls:

**Engineering Controls**: No information provided.

**PPE**:

**Eye/Face**: Wear splash-proof goggles.

**Hand**: Wear barrier gloves.

**Body**: Wear coveralls. If spraying, with prolonged use, or if in confined areas, wear impervious coveralls.

**Respiratory**: Wear a Type A (Organic vapour) respirator. If sanding dry product, wear a Class P1 (Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

- **Appearance**: COLOURED LIQUID
- **Odour**: PUNGENT ODOUR
- **Odour Threshold**: NOT AVAILABLE
- **Flammability**: HIGHLY FLAMMABLE
- **Flash Point**: 4.4°C (cc)
- **Boiling Point**: 111°C
- **Melting Point**: NOT AVAILABLE
- **Evaporation Rate**: NOT AVAILABLE
- **pH**: NOT AVAILABLE
- **Specific Gravity**: 0.967
- **Solubility (water)**: NOT AVAILABLE
- **Vapour Density**: 3.33 (Air = 1)
- **Vapour Pressure**: NOT AVAILABLE
- **Upper Explosion Limit**: 13 % (benzyl alcohol)
- **Lower Explosion Limit**: 1.3 %
- **Partition Coefficient**: NOT AVAILABLE
- **Autoignition Temperature**: NOT AVAILABLE
- **Decomposition Temperature**: NOT AVAILABLE
- **Viscosity**: 41.347 cSt
- **Explosive Properties**: NOT AVAILABLE
- **Oxidising Properties**: NOT AVAILABLE

9.2 Other information:

No information provided.
10. STABILITY AND REACTIVITY

10.1 Reactivity
Carefully review all information in sections 10.2 to 10.6.

10.2 Chemical stability
No information provided.

10.3 Possibility of hazardous reactions
No information provided.

10.4 Conditions to avoid
No information provided.

10.5 Incompatible materials
No information provided.

10.6 Hazardous decomposition products
May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary
Harmful - corrosive. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Chronic exposure may result in loss of appetite, tremors, anaemia, liver, kidney and nerve damage. May cause sensitisation by inhalation and skin contact. Possible risk of harm to the unborn child.

Eye
Corrosive. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.

Inhalation
Slightly corrosive - irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea, loss of appetite and vomiting. High level exposure may result in pulmonary oedema and unconsciousness. May cause sensitisation by inhalation. Chronic exposure may result in anaemia, liver, kidney and nerve damage. Harmful by inhalation.

Skin
Slightly corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. May be absorbed through skin with harmful effects. May cause sensitisation by skin contact.

Ingestion
Slightly corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.

Toxicity data
TOLUENE (108-88-3)
LC50 (Inhalation): 400 ppm/24 hours (mouse)
LCLo (Inhalation): 1600 ppm (guinea pig)
LD50 (Ingestion): 636 mg/kg (rat)
LD50 (Skin): 14100 µL/kg (rabbit)
LDlo (Ingestion): 50 mg/kg (human)

BENZYL ALCOHOL (100-51-6)
LCLo (Inhalation): 1000 ppm/8 hours (rat)
LD50 (Ingestion): 1230 mg/kg (rat)
LD50 (Skin): 2000 mg/kg (rabbit)
LDlo (Skin): 10 g/kg (cat)

2,4,6-TR(DIMETHYLAMINOMETHYL)PHENOL (90-72-2)
LD50 (Ingestion): 1200 mg/kg (rat)
LD50 (Skin): 1280 mg/kg (rat)

N-(3-(TRIMETHOXSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)
LD50 (Ingestion): 7460 mg/kg (rat)
LDlo (Skin): 16 g/kg (rabbit)
Product name

EC-273_ACTIVATOR FOR 10P20-44

M-PHENYLENEBIS(METHYLAMINE) (1477-55-0)
LC50 (Inhalation): 700 ppm/1 hour (rat)
LD50 (Ingestion): 930 mg/kg (rat)
LD50 (Skin): 2000 mg/kg (rabbit)
NONYL PHENOL (25154-52-3)
LD50 (Ingestion): 1231 mg/kg (mouse)
LD50 (Skin): 2140 uL/kg (rabbit)

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No information provided.

12.2 Persistence and degradability
No information provided.

12.3 Bioaccumulative potential
No information provided.

12.4 Mobility in soil
No information provided.

12.5 Results of PBT and vPvB assessment
No information provided.

12.6 Other adverse effects
No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
No information provided.

Legislation
Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Land Transport (ADG)  Sea Transport (IMDG/IMO)  Air Transport (IATA/ICAO)
14.1 UN number 3469  3469  3469
14.2 UN proper shipping name PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE
Product name: EC-273_ACTIVATOR FOR 10P20-44

14.3 Transport hazard classes

DG Class

| Subsidiary risk(s) | 3 | 3 | 3 |

14.4 Packing group

| 8 | 8 | 8 |

14.5 Environmental hazards

None Allocated

14.6 Special precautions for user

Hazchem Code: ●3W

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule

Classified as a Schedule 5 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications

C - Corrosive
F - Flammable
N - Dangerous for the environment
Repr. - Reproductive toxin
Xi - Irritant
Xn - Harmful

Risk phrases

R11: Highly flammable.
R20/22: Harmful by inhalation and if swallowed.
R34: Causes burns.
R43: May cause sensitisation by skin contact.
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R51/53: Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
R63: Possible risk of harm to the unborn child.

Safety phrases

S16: Keep away from sources of ignition - No smoking.
S23: Do not breathe gas/fumes/vapour/spray (where applicable).
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S38: In case of insufficient ventilation, wear suitable respiratory equipment.
S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
S61: Avoid release to the environment. Refer to special instructions/safety data sheets.

Inventory listing(s)

AUSTRALIA: AICS (Australian Inventory of Chemical Substances)

All components are listed on AICS, or are exempt.

15.2 Chemical safety assessment

No information provided.

16. OTHER INFORMATION

Additional information

This product is used in conjunction with a range of 10P20-44 Epoxy Primers. Please refer to the appropriate SDS before use.

WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the
EC-273_ACTIVATOR FOR 10P20-44

nature of the surface being welded, additional protection (e.g. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

SYNERGISM - ANTAGONISM: Ingredients in this product may act together to aggravate or reduce adverse effects. Accordingly the time weighted average concentration (TWA) provided for single ingredients should be considered as a guide only and all due care exercised when handling.

EPOXY - PHENOXY RESINS AND POLYURETHANES: Where spray painting with two or more component epoxy resins or polyurethane paints is undertaken, an employee shall wear a full face air-line respirator, full length chemically resistant coveralls and gloves. Further, if an individual is to enter an enclosed booth where a vapour or gas curing process is occurring, an air-line respirator is required. Once cured, these resins are considered non toxic.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Abbreviations

- ACGIH: American Conference of Governmental Industrial Hygienists
- CAS #: Chemical Abstract Service number - used to uniquely identify chemical compounds
- CNS: Central Nervous System
- EC No.: EC No - European Community Number
- EMS: Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
- GHS: Globally Harmonized System
- GTEPG: Group Text Emergency Procedure Guide
- IARC: International Agency for Research on Cancer
- LC50: Lethal Concentration, 50% / Median Lethal Concentration
- LD50: Lethal Dose, 50% / Median Lethal Dose
- mg/m³: Milligrams per Cubic Metre
- OEL: Occupational Exposure Limit
- pH: relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
- ppm: Parts Per Million
- STEL: Short-Term Exposure Limit
- STOT-RE: Specific target organ toxicity (repeated exposure)
- STOT-SE: Specific target organ toxicity (single exposure)
- SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons
- SWA: Safe Work Australia
- TLV: Threshold Limit Value
- TWA: Time Weighted Average

Report Status
This ChemAlert report has been independently compiled by RMT’s scientific department utilising the original Safety Data Sheet ("SDS") for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.
EC-273_ACTIVATOR FOR 10P20-44

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

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End of Report