

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

Pictograms



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.

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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.
P321	Specific treatment is advised - see first aid instructions.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use appropriate media for extinction.
P391	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.
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2.3 Other Hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

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

4. FIRST AID MEASURES

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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;
 - 3 Normal Foam (protein based foam that is not alcohol resistant).
 - W 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

Exposure standards

Substance	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Formaldehyde	SWA (AUS)	1	1.2	2	2.5

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Substance	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Toluene	SWA (AUS)	50	191	150	574
m-Xylene-a,a'-diamine	SWA (AUS)	--	0.1	--	--

Biological limits

Ingredient	Reference	Determinant	Sampling time	BEI
TOLUENE	ACGIH BEI	o-Cresol in urine	End of shift	0.02 mg/L
	ACGIH BEI	Toluene in urine	End of shift	0.03 mg/L
	ACGIH BEI	Toluene in blood	Prior to last shift of workweek	0.02 mg/L

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.

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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	<p>TOLUENE (108-88-3)</p> <p>LC50 (Inhalation): 400 ppm/24 hours (mouse)</p> <p>LCLo (Inhalation): 1600 ppm (guinea pig)</p> <p>LD50 (Ingestion): 636 mg/kg (rat)</p> <p>LD50 (Skin): 14100 µL/kg (rabbit)</p> <p>LDLo (Ingestion): 50 mg/kg (human)</p> <p>BENZYL ALCOHOL (100-51-6)</p> <p>LCLo (Inhalation): 1000 ppm/8 hours (rat)</p> <p>LD50 (Ingestion): 1230 mg/kg (rat)</p> <p>LD50 (Skin): 2000 mg/kg (rabbit)</p> <p>LDLo (Skin): 10 g/kg (cat)</p> <p>2,4,6-TRI(DIMETHYLAMINOMETHYL)PHENOL (90-72-2)</p> <p>LD50 (Ingestion): 1200 mg/kg (rat)</p> <p>LD50 (Skin): 1280 mg/kg (rat)</p> <p>N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)</p> <p>LD50 (Ingestion): 7460 mg/kg (rat)</p> <p>LDLo (Skin): 16 g/kg (rabbit)</p>

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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

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14.3 Transport hazard classes

DG Class	3	3	3
Subsidiary risk(s)	8	8	8
14.4 Packing group	II	III	III

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

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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/m ³	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.

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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