

MATERIAL SAFETY DATA SHEET



EC-275; CORROSION RESISTANT CURE AGENT

1. Identification of the Product and Company

Product Code & Name: EC-275; CORROSION RESISTANT CURE AGENT

Manufacturer: AkzoNobel Aerospace Coatings, a division of International Paint LLC
1 East Water Street
Waukegan, IL 60085 USA
Tel. 847 623 4200 Fax 847 625 3200

Emergency: Emergency telephone (US) CHEMTREC - 800 424 9300
Emergency telephone (Outside US) CHEMTREC - 703 527 3887
NOTE: CHEMTREC numbers to be used only in the event of emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

Product Use: Coating **Revision Date:** 12/09/2009

2. Hazards Identification

*** Emergency Overview *** ----- yellow to red liquid with amine odor ----- Class IB - Flammable Liquid ----- Keep away from heat, sparks and flame.----

Potential Acute Health Effects

Eye: Contains a component which is corrosive. Contact with eyes may cause permanent eye injury.

Skin: Contains a component which is corrosive. Contact may cause skin burning. Severely irritating to the skin. Prolonged contact may cause burns with redness and pain. May cause dry skin by dissolving skin oils. Contains a component which may cause allergic skin reaction. Contains a component which may cause skin sensitization.

Inhalation: Moderately irritating to nose, throat or breathing passages. May cause coughing, wheezing, shortness of breath or other symptoms of asthma. May cause unconsciousness by depressing the central nervous system after prolonged exposure to high concentrations. May increase risk for sudden death from irregular heart rhythms caused by stressful conditions that increase the levels of adrenalin in the blood. Contains a component which may induce respiratory allergy/sensitization. Symptoms include: cough, tightness in chest, and/or asthmatic wheezing.

Ingestion: Moderately irritating to the mouth, stomach, and digestive system. No ingestion exposure expected with normal occupational use.

Potential Chronic Health Effects

Eye: No Information.

Skin: Frequent or prolonged skin contact may cause irritation or a rash (dermatitis).

Inhalation: May cause slight increase in liver size without affecting the function of the liver. May cause small changes in the hearing system. Chronic inhalation may lower the count of certain types of blood cells. Chronic alcohol use can increase the potential for toxicity from the repeated exposure to the aromatic hydrocarbon in this product. May accumulate in the body with daily exposure.

Ingestion: Chronic ingestion exposure would be unlikely due to the method of use or physical properties of this product.

The components listed in Section 3 may affect the following target organs: Central Nervous System. Eyes. Kidneys. Liver. Respiratory System. Skin.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation, Eye Contact

3. Composition / Information on Ingredients

Chemical Name	CAS Number	WT %
TOLUENE	108-88-3	15-40
MODIFIED POLYAMIDE	MIXTURE	10-30
BENZYL ALCOHOL	100-51-6	10-30
SILANE	PROPRIETARY	5-10
AMINOETHYLPIPERAZINE	140-31-8	5-10
4,4-ISOPROPYLIDENEDIPHENOL	80-05-7	3-7
TRIS-2,4,6-(DIMETHYLAMINOMETHYL)PHENOL	90-72-2	3-7
NONYLPHENOL	84852-15-3	1-5
ETHYLENEDIAMINE	107-15-3	0.1-1.0

4. First Aid Measures

First Aid - Eye Contact: If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention.

First Aid - Skin Contact: If this product contacts the skin, promptly wash the contaminated skin with soap & water. If this product penetrates the clothing, promptly remove the clothing and wash the skin with soap & water. If irritation persists after washing, get medical attention. Launder clothing before reuse.

First Aid - Inhalation: If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing is difficult, get medical attention.

First Aid - Ingestion: If this product has been swallowed, get medical attention immediately.

5. Fire-Fighting Measures

Flash Point (F): 40

LOWER EXPLOSIVE LIMIT: 1.2

Auto Ignition Temperature (F): N.D.

UPPER EXPLOSIVE LIMIT: 7.0

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam

Special Fire Fighting Procedures: Firefighters and others exposed to vapors or products of combustion should wear self-contained breathing apparatus.

Conditions of Flammability: Vapors are heavier than air and may travel to a source of ignition and flash back.

Hazardous Combustion Products: Combustion may produce carbon monoxide, carbon dioxide and irritating or toxic vapors and gases.

Explosion Data - Sensitivity to Mechanical Impact: Avoid any sparking between metals. Use of non-sparking tools is recommended.

Explosion Data - Sensitivity to Static Discharge: To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

6. Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8. Evacuate personnel to safe areas.

Environmental Precautions: Do not allow material to enter sewers or ground.

Methods for Containment: Ventilate area to maintain exposure below permissible exposure limits. Stop or control the spill, if this can be done with undue risk.

Methods for Clean-Up: Eliminate all ignition sources. Use caution as spill may create a slip hazard. Isolate discharge material for proper disposal. Use spark-proof tools to containerize. Wipe, scrape, or soak up in an inert material. Wash spill area with soap and water.

7. Handling and Storage

Handling: Grounding or bonding of containers is recommended before material transfer. Activities such as sanding, burning off etc. of paint films may generate dust and/or fumes hazardous to the skin and lungs. Work in well ventilated areas. Use local exhaust ventilation and personal skin and respiratory protective equipment as appropriate.

Take precautionary measures against electrostatic discharges. Store away from heat, sparks, open flame and other ignition sources. Use non-sparking tools. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Storage: Store inside between 40F-100F. Storage areas should be dry and well-ventilated. Eliminate all ignition sources.

8. Exposure Controls / Personal Protection

Engineering Controls: It is recommended that work be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination. Use explosion-proof ventilation equipment.

Respiratory Protection: Appropriate respirators must be used, and a program that follows 29 CFR 1910.134 or other applicable regulatory requirements must be followed, when workplace hazards warrant the use of a respirator. NIOSH-approved or other appropriate respirators must be used when respiratory protection is necessary.

Eye Protection: Wear appropriate goggles, face shields or other PPE, which will be effective under the circumstances if the possibility of contact exists. A program meeting 29 CFR 1910.133 or other applicable regulatory requirements must be followed when PPE is necessary.

MSDS: EC-275

Other Protective Equipment: Use impermeable gloves and protective clothing as necessary to prevent skin contact.

Hygienic Practices: Do not eat, drink, chew tobacco or gum, or apply cosmetics while working with this product. Wash hands before performing any of these activities.

Chemical Name	CAS Number	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL C	OSHA PEL TWA
TOLUENE	108-88-3	20 ppm	N.D.	300 ppm	200 ppm
MODIFIED POLYAMIDE	MIXTURE	N.D.	N.D.	N.D.	N.D.
BENZYL ALCOHOL	100-51-6	N.D.	N.D.	N.D.	N.D.
SILANE	PROPRIETARY	N.D.	N.D.	N.D.	N.D.
AMINOETHYLPIPERAZINE	140-31-8	N.D.	N.D.	N.D.	N.D.
4,4-ISOPROPYLIDENEDIPHENOL	80-05-7	N.D.	N.D.	N.D.	N.D.
TRIS-2,4,6-(DIMETHYLAMINOMETHYL)PHENOL	90-72-2	N.D.	N.D.	N.D.	N.D.
NONYLPHENOL	84852-15-3	N.D.	N.D.	N.D.	N.D.
ETHYLENEDIAMINE	107-15-3	10 ppm	N.D.	N.D.	10 ppm

9. Physical and Chemical Properties

Theoretical Values

Boiling Range (F):	212 - 498	VOC (g/l)(less water & exempt):	371
Freeze Point (F):	N.D.	VOC (lb/gal)(less water & exempt):	3.1
Specific Gravity:	1.0	% Solids By Weight:	54
Appearance:	yellow to red	% Solids By Volume:	52
Physical State:	liquid	Density (lb/gal):	8.2
Odor:	amine	Flashpoint (F):	40
Odor Threshold (ppm):	N.D.	Vapor Pressure:	N.D.
Vapor Density:	< 3.72	Evaporation Rate:	N.D.
pH:	N.A.	Coefficient of water/oil distribution:	N.D.

10. Stability and Reactivity

Conditions To Avoid: Avoid contact with heat, open flame, sparks, or ignition sources. Open flames and sparks.

Hazardous Polymerization: Will not occur.

Stability: Stable.

11. Toxicological Information

Chemical Name	LD50	LC50	IARC	NTP	OSHA
TOLUENE	Oral Rat: 5000 mg/kg	Inhalation Rat: 8000 ppm/4H			
MODIFIED POLYAMIDE	N.D.	N.D.			
BENZYL ALCOHOL	Oral Rat: 1230 mg/kg	N.D.			
SILANE	Oral Rat: >2,000 mg/kg	N.D.			
AMINOETHYLPIPERAZINE	Oral Rat: 2105 mg/kg	N.D.			
4,4-ISOPROPYLIDENEDIPHENOL	Oral Rat: 3250 mg/kg	N.D.			
TRIS-2,4,6-(DIMETHYLAMINOMETHYL)PHENOL	Oral Rat: 1200 mg/kg	N.D.			
NONYLPHENOL	Oral Rat: 1300 mg/kg	N.D.			
ETHYLENEDIAMINE	Oral Rat : 1200 mg/kg	Inhalation Mouse: 300 mg/m3			

Irritancy of Product: This product contains ingredient(s) that are irritating to skin and eyes.

Sensitization to Product: This product contains ingredient(s) that are known skin and respiratory sensitizers.

Carcinogenicity: See IARC, NTP and OSHA data above.

Reproductive Toxicity: No Information.

Teratogenicity: No Information.

Mutagenicity: No Information.

12. Ecological Information

AkzoNobel has not conducted specific studies on the eco toxicity or environmental fate of this product. Commonly available data on certain ingredients indicate that acute or chronic effects could result from uncontrolled releases to soil, ground water, storm waters, or air. Appropriate measures should be taken to prevent uncontrolled releases. Prompt containment and clean up should be performed if releases do occur.

13. Disposal Considerations

Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state, and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product. Do not dispose of in an uncontrolled manner.

14. Transport Information

DOT Proper Shipping Name:	Paint Related Material	IATA Proper Shipping Name:	Paint Related Material	IMO Proper Shipping Name:	Paint Related Material
DOT Hazard Class:	3	IATA Hazard Class:	3	IMO Hazard Class:	3
DOT UN Number:	UN1263	IATA UN Number:	UN1263	IMO UN Number:	UN1263
DOT Packing Group:	II	IATA Packing Group:	II	IMO Packing Group:	II
Label Codes:	3	IATA Hazard Subclass:	N/A	IMO Subsidiary Risk:	N/A
Resp. Guide Page:	128			Marine Pollutant:	No

Chemical Name	CAS Number	CERCLA RQ
TOLUENE	108-88-3	1000 LBS
ETHYLENEDIAMINE	107-15-3	5000 LBS

15. Regulatory Information

U.S. FEDERAL REGULATIONS: As follows -

CERCLA - SARA Hazard Category: This product is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD

SARA Section 313: This product contains the following substances subject to the reporting requirements of Section 313 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and 40 CFR 372:

Chemical Name	313 Category	CAS Number	WT %
TOLUENE		108-88-3	29.8
4,4-ISOPROPYLIDENEDIPHENOL		80-05-7	5.7

Clean Air Act: This product contains the following chemical substances listed as Hazardous Air Pollutants (HAPs) under the Clean Air Act of 1990:

Chemical Name	HAP Category	CAS Number	WT %
TOLUENE		108-88-3	29.8

Toxic Substances Control Act: All the components of this product comply with applicable requirements of the US EPA TSCA inventory. Contains the following chemical(s) subject to the reporting requirements of TSCA 12b if exported from the US.
None Known.

U.S. STATE REGULATIONS: As follows -

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

INTERNATIONAL REGULATIONS: As follows -

Canadian WHMIS Class: B2 D2A

CPRC: This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations.

European EINECS - All the components of this product are listed or are exempt from listing.

Austalian AICS - The status of one or more components of this product is not known.

16. Other Information

National Paint & Coatings Association (NPCA) Hazardous Material Identification System (HMIS):

Health: 3 Flammability: 3 Reactivity: 2 Personal Protection: See Section 8

Legend: N.A. - Not Applicable, N.D. - Not Determined

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel.

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NPCA Label Statements

WARNING! Flammable liquid and vapor. Vapor harmful.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Causes eye irritation. Causes skin irritation. Causes nose and throat irritation. Vapor harmful. May affect the brain or nervous system causing dizziness, headache or nausea.

First Aid: In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention immediately; for skin, wash thoroughly with soap and water. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately. If swallowed, do not induce vomiting. Get medical attention immediately.

Vapors may cause flash fire. Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves & ovens, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Use only with adequate ventilation. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes, skin and clothing. Do not breathe vapors. Wash thoroughly after handling. **FOR INDUSTRIAL USE ONLY.**

If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.