
Material Safety Data Sheet

Resurf® 50 – VO “B” Side

Version 1.14
Revision Date 10/28/2005

MSDS Number 300000008478
Print Date 02/10/2008

1. PRODUCT AND SUPPLIER IDENTIFICATION

Product name: ANCAMIDE ® 2396 Curing Agent
Product Use Description: Curing Agent, Epoxy
Supplier: Air Products and Chemicals, Inc
7201 Hamilton Blvd.
Allentown, PA 18195-1501
Telephone: 1-800-345-3148 Chemicals
1-800-752-1597 Gases and Electronic Chemicals
Emergency telephone number: 800-523-9374 USA
01-610-481-7711 International

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
Formaldehyde, polymer with benzeneamine, hydrogenated	135108-88-2	> 30%
Tetraethylenepentamine	112-57-2	< 10 %
Nonylphenol	25154-52-3	< 10 %

CHEMICAL FAMILY: Amidoamine.

3. HAZARDS IDENTIFICATION

Emergency Overview

Harmful if swallowed.
Corrosive
Components of the product may affect the nervous system.
Severe skin irritant
Severe eye irritant
May cause sensitization by skin contact

Potential Health Effects

Inhalation: Can cause severe eye, skin and respiratory tract burns. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

Eye contact: Causes eye burns. May cause blindness. Severe eye irritation.

Skin contact: Causes skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties.

Ingestion: Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

Chronic Health Hazard: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. May cause allergic skin reaction.

Exposure Guidelines

Target Organs: Skin.
Eyes.
Central nervous system.

Aggravated Medical Condition

Eye disease Skin disorders and Allergies. Neurological disorders

4. FIRST AID MEASURES

General advice: Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Eye contact: Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.

Skin contact: I immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing. Take off contaminated clothing and shoes immediately. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.

Inhalation: Move to fresh air.

5. FIRE- FIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam.
Carbon dioxide (CO₂).
Dry chemical.
Dry sand.
Limestone powder.

Specific hazards: May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NO_x) is to be expected. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.

Special protective equipment for fire-fighters: Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

Further information: Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.
Environmental precautions	Construct a dike to prevent spreading.
Methods for cleaning up	Approach suspected leak areas with caution. Contact Air Products' Emergency Response Center for advice. Place in appropriate chemical waste container.
Additional advice	If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling

Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancercausing nitrosamines could be formed. Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage

Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.

Technical measures/Precautions

Do not store in reactive metal containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Provide readily accessible eye wash stations and safety showers.
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment

Respiratory protection:	Not required for properly ventilated areas.
Hand protection:	Neoprene gloves. Nitrile rubber. Butyl-rubber Impervious gloves. PVC disposable gloves The breakthrough time of the selected glove(s) must be greater than the intended use period.
Eye protection:	Full face shield with goggles underneath. Chemical resistant goggles must be worn.
Skin and body protection:	Impervious clothing. Full rubber suit (rain gear). Rubber or plastic boots. Long sleeve shirts and trousers without cuffs. Slicker Suit.
Environmental exposure controls:	Construct a dike to prevent spreading.
Special instructions for protection and hygiene:	Discard contaminated leather articles. Provide readily accessible eye wash

Acute dermal:	Severe skin irritation
Irritation/corrosion	
Sensitization:	May cause sensitization by skin contact. Sensitization has occurred in laboratory animals after repeated exposures.

Chronic Health Hazard

The product or a component may be mutagenic, the data is inconclusive. Mixed polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney, and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity:	No data is available on the product itself.	
Toxicity to fish - Components		
Nonylphenol	LC50 (96 h): 0.128 mg/l	Species: Fathead minnow (Pimephales promelas).
Toxicity to daphnia - Components		
Nonylphenol	EC50 (48 h): 0.0848 mg/l	Species: Daphnia
Nonylphenol	EC50 (48 h): 0.19 mg/l	Species: Daphnia
Toxicity to other organisms:	No data available.	

Persistence and degradability

Mobility:	No data available.
Bioaccumulation:	No data is available on the product itself.

Bioaccumulation - Components	
Formaldehyde, polymer with benzeneamine, hydrogenated	Does not bioaccumulate
Nonylphenol	Moderate bioaccumulation potential

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	Contact supplier if guidance is required.
Contaminated packaging	Dispose of container and unused contents in accordance with federal, state, and local requirements.

14. TRANSPORT INFORMATION

CFR

Proper shipping name:	Amines, liquid, corrosive, n.o.s. (Cycloaliphatic amine, Nonylphenol)
Class	8
UN/ID No	UN2735
Packing group:	III

IATA

Proper shipping name	Amines, liquid, corrosive, n.o.s. (Cycloaliphatic amine, Nonylphenol)
----------------------	--

Class 8
UN/ID No UN2735
Packing group III

IMDG

Proper shipping name AMINES, LIQUID, CORROSIVE, N.O.S.
(Cycloaliphatic amine, Nonylphenol)
Class 8
UN/ID No UN2735
Packing group III

CTC

Proper shipping name AMINES, LIQUID, CORROSIVE, N.O.S.
(Cycloaliphatic amine, Nonylphenol)
Class 8
UN/ID No UN2735
Packing group III

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es)
Corrosive. Sensitizer

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer
Canada	DSL	Included on Inventory
Australia	AICS	Included on Inventory
Japan	ENCS	Included on Inventory
South Korea	ECL	Included on Inventory
China	SEPA	Included on Inventory
Philippines	PICCS	Included on Inventory

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:

Acute Health Hazard Chronic Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level: None

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS Hazard Classification

Toxic Material Causing Other Toxic Effects, Corrosive Material

16. OTHER INFORMATION

HMIS Rating

Health 3
Flammability: 1
Physical hazard: 0

Prepared by: Air Products and Chemicals, Inc. Global EH&S Product Safety Department
For additional information, please visit our Product Stewardship web site at
<http://www.airproducts.com/productstewardship/>

RESURF® IS A REGISTERED TRADEMARK OF POLYMER CONCRETE, INC.