



Certificate of Analysis

BOSSCO INDUSTRIES INCORPORATED
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 MCKINNEY TX 75071
 USA

Air Products and Chemicals, Inc.
 7201 Hamilton Blvd.
 ALLENTOWN PA 18195-1501
 USA
 Tel: (610)481-4911
 Date Printed: 19 MAR 2015

Customer Ship-to: 313662
 Customer Order No: 0005843-45
 Sales Order No.: 1120210335
 Delivery No.: 8038520365
 Ship Date: 19 MAR 2015

Net Weight: 198.000 kg

Material 192875 ANCAMINE® 2804 Curing Agent	Mfg. Date 17 MAR 2015	Analysis Date 17 MAR 2015	Best if Used By 17 MAR 2017
Batch 1939043	Quantity 1 EA	Source Location 5219	

LOWER LIMIT	UPPER LIMIT	NOMINAL VALUE	ACTUAL VALUE	UNIT	EXPANDED UNCERT.	NO REPS STD DEV	ANALYTICAL		
							PHASE	FREQ	METHOD
Amine Value 575	650		604	mgKOHg			B		Titration
Color Gardner	2.5		1.0				B		Colorimeter
Viscosity @ 25C 20	75		54	cps			B		Viscometer
Water	1.0		0.3	%W			B		AM#7B

This certificate is issued electronically and is valid without a signature.

REMARKS:

Safety Data Sheet

Version 3.1
Revision Date 01/26/2015

SDS Number 300000037649
Print Date 03/07/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ANCAMINE[®] 2904 Curing Agent

Product Use Description : Curing Agent

Manufacturer/Importer/Distributor : Air Products and Chemicals, Inc
7201 Hamilton Blvd.
Allentown, PA 18195-1501
GST No. 123600835 RT0001
QST No. 102753981 TQ0001

Telephone : 1-610-481-4911 Corporate
1-800-345-3148 Chemicals Cust Serv
1-800-752-1597 Gases/Electronics Cust Serv

Emergency telephone number (24h) : 800-523-9374 USA
+1 610 481 7711 International

2. HAZARDS IDENTIFICATION

GHS classification

Acute toxicity - Oral Category 4
Skin corrosion - Category 1B
Serious Eye Damage - Category 1
Skin sensitization - Category 1
Specific target organ toxicity - repeated exposure - Oral Category 2

GHS label elements

Hazard pictograms/symbols



Signal Word: Danger

Hazard Statements:

H302:Harmful if swallowed.

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H314:Causes severe skin burns and eye damage.

H317:May cause an allergic skin reaction.

H373a:May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary Statements:

- Prevention : P260:Do not breathe dust/fume/gas/mist/vapours/spray.
P264:Wash hands thoroughly after handling.
P280:Wear protective gloves/protective clothing/eye protection/face protection.
- Response : 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.
P305+P351+P338 :IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 :Immediately call a POISON CENTRE or doctor/physician.
P333+P313 :If skin irritation or rash occurs: Get medical advice/attention.
P363 :Wash contaminated clothing before reuse.
- Disposal : P501:Disposal of contents/container to be specified in accordance with regulations.

Hazards not otherwise classified

Harmful if swallowed.

Corrosive

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration
Cycloaliphatic amine	Not Available	>= 25%
Aliphatic Amines	Not Available	< 20 %

CHEMICAL FAMILY: Amine The remaining components are trade secret.

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 : Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives

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- medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
- 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.
- Most important symptoms/effects - acute and delayed : Eye disease. Skin disorders and Allergies. Liver disorders.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam.
Carbon dioxide (CO₂).
Dry chemical.
Dry sand.
Limestone powder.
- Specific hazards : Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
- 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., Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment, and Emergency Procedures : Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.
- Environmental precautions : Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. Construct a dike to prevent spreading.
- Methods for cleaning up : Contact Air Products' Emergency Response Center for advice. Approach suspected leak areas with caution. Place in appropriate chemical waste container.
- Additional advice : If possible, stop flow of product.

7. HANDLING AND STORAGE

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Handling

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. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage

Do not store near acids. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep from freezing

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 : Butyl-rubber
Nitrile rubber.
Neoprene gloves.
Impervious gloves.
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Full face shield with goggles underneath.
- Skin and body protection : Impervious clothing.
Full rubber suit (rain gear).
Rubber or plastic boots.
Slicker Suit.
- Environmental exposure controls : Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.
- Special instructions for protection and hygiene : Discard contaminated leather articles. Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	: Liquid. Colorless.
Odor	: Ammoniacal.
Odor threshold	: No data available.
pH	: Alkaline.
Melting point/range	: No data available.
Boiling point/range	: 522 F (272 °C)
Flash point	: > 230 F (> 110 °C)
Evaporation rate	: No data available.
Flammability (solid, gas)	: Not applicable.
Upper/lower explosion/flammability limit	: Not applicable.
Vapor pressure	: 2.90 mmHg
Water solubility	: No data available.
Relative vapor density	: Not applicable.
Relative density	: 0.97
Partition coefficient (n-octanol/water)	: No data available.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity	: 35 - 50 mPa.s at 77 F (25 °C)
Molecular Weight	: No data available.

10. STABILITY AND REACTIVITY

Chemical Stability	: Stable under normal conditions.
Conditions to avoid	: No data available.
Materials to avoid	: Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. Sodium hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide

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possibly creating an explosion.
Oxidizing agents.

Hazardous decomposition products : Nitric acid.
Ammonia
Nitrogen oxides (NOx).
Nitrogen oxide can react with water vapors to form corrosive nitric acid.
Carbon monoxide.
Carbon dioxide (CO2).

Possibility of hazardous Reactions/Reactivity : No data available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure

Effects on Eye : Causes eye burns. May cause blindness.

Effects on Skin : Causes skin burns.

Inhalation Effects : Can cause severe eye, skin and respiratory tract burns.

Ingestion Effects : 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.

Symptoms : No data available.

Acute toxicity

Acute Oral Toxicity : No data is available on the product itself.

Acute Oral Toxicity - Components

Cycloaliphatic amine	LD50 : 625 mg/kg	Species : Rat.
Aliphatic Amines	LD50 : 1,200 mg/kg	Species : Rat.

Inhalation : No data is available on the product itself.

Acute Dermal Toxicity : No data is available on the product itself.

Acute Dermal Toxicity - Components

Cycloaliphatic amine	LD50 : 2,110 mg/kg	Species : Rabbit.
Aliphatic Amines	LD50 : > 200 mg/kg	Species : Rabbit.

Skin corrosion/irritation : No data available.

Serious eye damage/eye irritation : No data available.

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Sensitization. : May cause sensitization of susceptible persons by skin contact.

Chronic toxicity or effects from long term exposures

Carcinogenicity : No data available.

Reproductive toxicity : No data is available on the product itself.

Germ cell mutagenicity : Not mutagenic in AMES Test.

Specific target organ systemic toxicity (single exposure) : No data available.

Specific target organ systemic toxicity (repeated exposure) : No data available.

Aspiration hazard : No data available.

Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Eye disease., Skin disorders and Allergies., Liver disorders.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to fish - Components
Cycloaliphatic amine

LC0 (96 h) : 46 mg/l

Species : Golden orfe
(Leuciscus idus).

Cycloaliphatic amine

LC50 (96 h) : > 100 mg/l

Species : Golden orfe
(Leuciscus idus).

Toxicity to daphnia - Components
Cycloaliphatic amine

EC50 (48 h) : 6.84 mg/l

Species : Daphnia
magna.

Toxicity to algae - Components
Cycloaliphatic amine

EC50 (72 h) : 140 - 200 mg/l

Species : Algae.

Toxicity to other organisms : No data available.

Persistence and degradability

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

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : The product should not be allowed to enter drains, water courses or the soil; dispose of this material and its container in a safe way. 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

DOT

UN/ID No. : UN2735
Proper shipping name : Amines, liquid, corrosive, n.o.s., (Cycloaliphatic amine, Aliphatic Amines)
Class or Division : 8
Packing group : II
Label(s) : 8
Marine Pollutant : No

IATA

UN/ID No. : UN2735
Proper shipping name : Amines, liquid, corrosive, n.o.s., (Cycloaliphatic amine, Aliphatic Amines)
Class or Division : 8
Packing group : II
Label(s) : 8
Marine Pollutant : Yes

** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

IMDG

UN/ID No. : UN2735
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S., (Cycloaliphatic amine, Aliphatic Amines)
Class or Division : 8
Packing group : II
Label(s) : 8
Marine Pollutant : Yes

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** NOTE: This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

TDG

UN/ID No. : UN2735
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S., (Cycloaliphatic amine, Aliphatic Amines)
Class or Division : 8
Packing group : II
Label(s) : 8
Marine Pollutant : No

Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Air Products customer service representative.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

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

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.

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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

Telephone : 1-610-481-4911 Corporate
1-800-345-3148 Chemicals Cust Serv
1-800-752-1597 Gases/Electronics Cust Serv

Preparation Date : 03/07/2015

For additional information, please visit our Product Stewardship web site at
<http://www.airproducts.com/productstewardship/>
