



Revision Date: 20-Sep-2018 Revision Number: 5

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name POLYAMIDE EPOXY COATING SAFETY YELLOW

Product Code V400-10
Alternate Product Code V40010
Product Class EPOXY

Product Class EPOX'
Color Yellow

Recommended use Industrial paint

**Restrictions on use**No information available

Manufacturer Emergency Telephone

Benjamin Moore & Co. CHEMTREC (US): 800-424-9300
101 Paragon Drive CHEMTREC (outside US): (703)-527-3887

Montvale, NJ 07645 Phone: 1-866-708-9180 corotechcoatings.com

## 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

## Label elements

Danger			
Hazard statements Causes skin irritation			

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Causes serious eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause respiratory irritation. May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Flammable liquid and vapor



Appearance liquid Odor solvent

## **Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Do not breathe dust/fume/gas/mist/vapors/spray

Do not eat, drink or smoke when using this product

Use only outdoors or in a well-ventilated area

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Keep cool

Wear protective gloves/protective clothing/eye protection/face protection

#### **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

#### **Eves**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing

If eye irritation persists: Get medical advice/attention

#### Skin

If skin irritation or rash occurs: Get medical advice/attention

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

Wash contaminated clothing before reuse

#### Inhalation

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

#### Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

**Fire** 

In case of fire: Use CO2, dry chemical, or foam for extinction

### **Precautionary Statements - Storage**

Store locked up

Store in a well-ventilated place. Keep container tightly closed

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Not applicable

#### Other information

No information available

#### Other hazards

**IMPORTANT:** Designed to be mixed with other components. Mixture will have hazards of all components. Before opening packages, read all warning labels. Follow all precautions.

**CAUTION:** All floor coatings may become slippery when wet. Where non-skid characteristics are desired, use an appropriate anti-slip aggregate.

## 3. COMPOSITION INFORMATION ON COMPONENTS

Chemical name	CAS No.	Weight-%
Polyamine adduct	-	30
Kaolin	1332-58-7	25
Benzyl alcohol	100-51-6	15
Xylene	1330-20-7	10
Propylene glycol monomethyl ether	107-98-2	10
Solvent naphtha, petroleum, light aromatic	64742-95-6	10
Titanium dioxide	13463-67-7	10
1,2,4-Trimethylbenzene	95-63-6	5
Ethyl benzene	100-41-4	5
Triethylenetetramine	112-24-3	5

## 4. FIRST AID MEASURES

## **Description of first aid measures**

General Advice If symptoms persist, call a physician. Show this safety data sheet to the doctor in

attendance.

**Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact

lenses and continue flushing for at least 15 minutes. Keep eye wide open while

rinsing. If symptoms persist, call a physician.

**Skin Contact** Wash off immediately with soap and plenty of water while removing all

contaminated clothes and shoes. If skin irritation persists, call a physician. Wash

clothing before reuse. Destroy contaminated articles such as shoes.

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Inhalation Move to fresh air. If symptoms persist, call a physician.

If not breathing, give artificial respiration. Call a physician immediately.

Ingestion Clean mouth with water and afterwards drink plenty of water. Do not induce

vomiting without medical advice. Never give anything by mouth to an unconscious

person. Consult a physician.

**Protection Of First-Aiders** Use personal protective equipment.

**Most Important** 

Symptoms/Effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May

cause allergic skin reaction.

**Notes To Physician** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

Flammable Properties Vapors may travel considerable distance to a source of

ignition and flash back. Vapors may cause flash fire.

Suitable Extinguishing Media Foam, dry powder or water. Use extinguishing measures

that are appropriate to local circumstances and the

surrounding environment.

**Protective Equipment And Precautions For** 

**Firefighters** 

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent)

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and full protective gear.

**Hazardous combustion products** Burning may result in carbon dioxide, carbon monoxide

and other combustion products of varying composition

which may be toxic and/or irritating.

Flammable. Flash back possible over considerable **Specific Hazards Arising From The Chemical** 

> distance. Keep product and empty container away from heat and sources of ignition. Closed containers may rupture if exposed to fire or extreme heat. Thermal decomposition can lead to release of irritating gases and

vapors.

**Sensitivity To Mechanical Impact** No

**Sensitivity To Static Discharge** Yes

Flash Point Data

80 Flash Point (°F) Flash Point (°C) 27 **PMCC** Method

Flammability Limits In Air

Not available Lower flammability limit: Not available **Upper flammability limit:** 

Health: 2 Flammability: 3 Instability: 0 NFPA Special: Not Applicable

#### NFPA Legend

0 - Not Hazardous

- 1 Slightly
- 2 Moderate
- 3 High
- 4 Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions** Remove all sources of ignition. Take precautions to prevent flashback. Ground

and bond all containers and handling equipment. Take precautionary measures against static discharges. Ensure adequate ventilation. Avoid contact with skin,

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eyes and clothing. Use personal protective equipment.

Other Information Prevent further leakage or spillage if safe to do so. Do not allow material to

contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be

advised if significant spillages cannot be contained.

**Environmental precautions** See Section 12 for additional Ecological Information.

Methods for Cleaning Up Dam up. Soak up with inert absorbent material. Use a non-sparking or explosion

proof means to transfer material to a sealed, appropriate container for disposal.

Clean contaminated surface thoroughly.

#### 7. HANDLING AND STORAGE

Handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Do not breathe vapors or spray mist. Use only in ventilated areas. Prevent vapor

build-up by providing adequate ventilation during and after use.

Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other

sources of ignition during use and until all vapors are gone. Ignition and/or flash

back may occur.

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away

from heat. Keep away from open flames, hot surfaces and sources of ignition.

Keep in properly labeled containers. Keep out of the reach of children.

**Incompatible Materials** Incompatible with strong acids and bases and strong oxidizing agents.

Technical measures/Precautions Ensure adequate ventilation. Use only where airflow will keep vapors from building

up in or near the work area in adjoining rooms. Comply with all national, state, and

local codes pertaining to the storage, handling, dispensing and disposal of

flammable liquids.

Dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. All equipment should be non-sparking and explosion proof. Use explosion proof electrical equipment for ventilation, lighting and material handling.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## **Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL
Kaolin	2 mg/m³ - TWA	15 mg/m³ - TWA
		5 mg/m³ - TWA
Xylene	100 ppm - TWA	100 ppm - TWA
	150 ppm - STEL	435 mg/m³ - TWA
Propylene glycol monomethyl ether	50 ppm - TWA	N/E
	100 ppm - STEL	
Titanium dioxide	10 mg/m³ - TWA	15 mg/m³ - TWA
Ethyl benzene	20 ppm - TWA	100 ppm - TWA
· ·		435 mg/m³ - TWA

Legend

ACGIH - American Conference of Governmental Industrial Hygienists Exposure Limits

OSHA - Occupational Safety & Health Administration Exposure Limits

N/E - Not Established

# Appropriate engineering

controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment** 

Eye/Face Protection

Skin Protection

Safety glasses with side-shields. Long sleeved clothing. Protective gloves.

**Respiratory Protection** 

Use only with adequate ventilation. In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a

technically qualified person for the specific work conditions. When spraying the product or applying in confined areas, wear a NIOSH approved respirator

specified for paint spray or organic vapors.

**Hygiene Measures** Avoid contact with skin, eyes and clothing. Remove and wash contaminated

clothing before re-use. Wash thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid Odor solvent

Odor Threshold No information available

 Density (lbs/gal)
 9.85 - 9.95

 Specific Gravity
 1.18 - 1.20

Specific Gravity
pH
No information available
Viscosity (cps)
No information available

Solubility(ies)

Water solubility

Evaporation Rate

No information available
No information available
No information available

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Vapor pressure @20 °C (kPa)No information availableVapor densityNo information available

 Wt. % Solids
 70 - 80

 Vol. % Solids
 60 - 70

 Wt. % Volatiles
 20 - 30

 Vol. % Volatiles
 30 - 40

 VOC Regulatory Limit (g/L)
 < 340</td>

 Boiling Point (°F)
 248

 Boiling Point (°C)
 120

Freezing Point (°F)

Freezing Point (°C)

No information available

No information available

Flash Point (°F) 80
Flash Point (°C) 27
Method PMCC

Flammability (solid, gas) Not applicable

Upper flammability limit:

Lower flammability limit:

Autoignition Temperature (°F)

Autoignition Temperature (°C)

Decomposition Temperature (°F)

Decomposition Temperature (°C)

No information available

## 10. STABILITY AND REACTIVITY

**Reactivity** No data available

Chemical Stability Stable under normal conditions. Hazardous polymerisation

does not occur.

Conditions to avoid Keep away from open flames, hot surfaces, static

electricity and sources of ignition. Sparks. Elevated

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temperature.

Incompatible Materials Incompatible with strong acids and bases and strong

oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating

gases and vapors.

Possibility of hazardous reactions None under normal conditions of use.

#### 11. TOXICOLOGICAL INFORMATION

#### **Product Information**

Information on likely routes of exposure

**Principal Routes of Exposure** Eye contact, skin contact and inhalation.

**Acute Toxicity** 

**Product Information**Repeated or prolonged exposure to organic solvents may lead to permanent brain

and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

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#### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Eye contact** Contact with eyes may cause irritation.

**Skin contact** May cause skin irritation and/or dermatitis. Prolonged skin contact may defat the

skin and produce dermatitis.

Ingestion Harmful if swallowed. Ingestion may cause irritation to mucous membranes. Small

amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to

death.

**Inhalation** Harmful by inhalation. High vapor / aerosol concentrations are irritating to the

eyes, nose, throat and lungs and may cause headaches, dizziness, drowsiness,

unconsciousness, and other central nervous system effects.

Sensitization Respiratory sensitizer

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Neurological EffectsNo information available.Mutagenic EffectsNo information available.

**Reproductive Effects** Possible risk of impaired fertility. Possible risk of harm to the unborn child.

**Developmental Effects**No information available. **Target organ effects**No information available.

**STOT - repeated exposure**Causes damage to organs through prolonged or repeated exposure if inhaled.

Central nervous system. Causes damage to organs through prolonged or

repeated exposure.

**STOT - single exposure** May cause disorder and damage to the. Respiratory system.

Other adverse effects No information available.

**Aspiration Hazard** May be harmful if swallowed and enters airways. Small amounts of this product

aspirated into the respiratory system during ingestion or vomiting may cause mild

to severe pulmonary injury, possibly progressing to death.

#### Numerical measures of toxicity

#### The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 3399 mg/kg
ATEmix (dermal) 3085 mg/kg
ATEmix (inhalation-dust/mist) 6.4 mg/L
ATEmix (inhalation-vapor) 486.7 mg/L

**Acute Toxicity** 

**Component Information** 

Kaolin

LD50 Oral: > 5000 mg/kg (Rat)

Benzyl alcohol

LD50 Oral: 1230-1660 mg/kg (Rat) LD50 Dermal: 2,000 mg/kg (Rabbit)

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LC50 Inhalation (Vapor): > 5,000 mg/m<sup>3</sup> (Rat)

Xylene

LD50 Oral: 4300 mg/kg (Rat)

LD50 Dermal: > 1700 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 5000 ppm (Rat, 4 hr.)

Propylene glycol monomethyl ether
LD50 Oral: 6,600 mg/kg (Rat)
LD50 Dermal: 13,000 mg/kg (Rabbit)
LC50 Inhalation (Vapor): 10,000 ppm (Rat)
Solvent naphtha, petroleum, light aromatic

LD50 Oral: 8400 mg/kg (Rat)

Titanium dioxide

LD50 Oral: > 10000 mg/kg (Rat)

1,2,4-Trimethylbenzene LD50 Oral: 5000 mg/kg (Rat)

LC50 Inhalation (Vapor): 18000 mg/m<sup>3</sup> (Rat, 4 hr.)

Ethyl benzene

LD50 Oral: mg/kg (Rat)

LD50 Dermal: > mg/kg (Rabbit)

LC50 Inhalation (Vapor): mg/m3 (Rat, 2 hr.)

Triethylenetetramine

LD50 Oral: 2500 mg/kg (Rat) LD50 Dermal: 805 mg/kg (Rabbit)

## Carcinogenicity

The information below indicates whether each agency has listed any ingredient as a carcinogen:.

Chemical name	IARC	NTP	OSHA
	2B - Possible Human		Listed
Titanium dioxide	Carcinogen		
	2B - Possible Human		Listed
Ethyl benzene	Carcinogen		

<sup>•</sup> Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

#### Legend

IARC - International Agency for Research on Cancer

NTP - National Toxicity Program

OSHA - Occupational Safety & Health Administration

#### 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity Effects**

The environmental impact of this product has not been fully investigated.

#### **Product Information**

#### **Acute Toxicity to Fish**

No information available

#### **Acute Toxicity to Aquatic Invertebrates**

No information available

## **Acute Toxicity to Aquatic Plants**

No information available

#### Persistence / Degradability

No information available.

#### **Bioaccumulation**

No information available.

#### **Mobility in Environmental Media**

No information available.

#### Ozone

Not applicable

## **Component Information**

## **Acute Toxicity to Fish**

Xylene

LC50: 13.5 mg/L (Rainbow Trout - 96 hr.)

Titanium dioxide

LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Ethyl benzene

LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

## **Acute Toxicity to Aquatic Invertebrates**

Ethyl benzene

EC50: 1.8 mg/L (Daphnia magna - 48 hr.)

## **Acute Toxicity to Aquatic Plants**

Ethyl benzene

EC50: 4.6 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

# 13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with federal, state, and local regulations. Local

requirements may vary, consult your sanitation department or state-designated

environmental protection agency for more disposal options.

Empty Container Warning Emptied containers may retain product residue. Follow label warnings even after

container is emptied. Residual vapors may explode on ignition.

## 14. TRANSPORT INFORMATION

DOT

Proper Shipping Name PAINT

**YELLOW** 

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**Hazard class** 

UN-No. UN1263 **Packing Group** Ш

Description UN1263, PAINT, 3, III

ICAO / IATA Contact the preparer for further information.

IMDG / IMO Contact the preparer for further information.

#### 15. REGULATORY INFORMATION

## **International Inventories**

**TSCA: United States** Yes - All components are listed or exempt. Yes - All components are listed or exempt. **DSL: Canada** 

# **Federal Regulations**

## SARA 311/312 hazardous categorization

Acute health hazard Yes Chronic Health Hazard Yes Fire hazard Yes Sudden release of pressure hazard No Reactive Hazard No

### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS No.	Weight-%	CERCLA/SARA 313 (de minimis concentration)
Xylene	1330-20-7	10	1.0
1,2,4-Trimethylbenzene	95-63-6	5	1.0
Ethyl benzene	100-41-4	5	0.1

## Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

Chemical name	CAS No.	Weight-%	<b>Hazardous Air Pollutant</b>
			<u>(HAP)</u>
Xylene	1330-20-7	10	Listed
Ethyl benzene	100-41-4	5	Listed

## **US State Regulations**

### **California Proposition 65**

MARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania
Kaolin	X	X	X
Benzyl alcohol	Χ		X
Xylene	X	X	X
Propylene glycol monomethyl ether	Χ	X	X
Titanium dioxide	X	X	X
1,2,4-Trimethylbenzene	X	X	X
Ethyl benzene	Χ	X	X
Triethylenetetramine	X	X	X
2-Butoxyethanol	X	X	X

## Legend

X - Listed

## 16. OTHER INFORMATION

HMIS -Health: 2\* Flammability: 3 Reactivity: 0 PPE: -

## **HMIS Legend**

- 0 Minimal Hazard
- 1 Slight Hazard
- 2 Moderate Hazard
- 3 Serious Hazard
- 4 Severe Hazard
- \* Chronic Hazard
- X Consult your supervisor or S.O.P. for "Special" handling instructions.

Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

**Product Stewardship Department** Prepared By

Benjamin Moore & Co. 101 Paragon Drive Montvale, NJ 07645 800-225-5554

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**Revision Summary** Not available

#### Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

**END OF SAFETY DATA SHEET**