



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 03/30/2012

Version 2

Reviewed on 03/30/2012

* 1 Identification of the substance/mixture and of the company/undertaking

· Product identifier

· Trade name: **Mereco 302 Activator**

· Application of the substance / the preparation
Epoxy curing agent

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Mereco Division
Metachem Resins Corporation
1505 Main Street
West Warwick, RI 02893
USA Phone +1 / 401 / 822-9300

· Information department: Technical department.
email = info@mereco.com

· Emergency telephone number: Telephone: (800) 424-9300 (Chemtrec)
Call this number in the event of an accident resulting in a spill, leak or fire. Call this number in the event of exposure to the chemicals.

* 2 Composition/information on ingredients

· Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with non-hazardous additions.

· Components:		
	aliphatic polyamine	C R34; Xn R68/20/21; Xi R41-43
	aliphatic amine	C R34; Xn R20/21/22 R10
	inorganic filler	Xi R36/37
	Reactive diluent	Xn R20/22-40-68; Xi R36/37-43 R52/53 Carc. Cat. 3, Muta. Cat. 3
111-40-0	2,2'-iminodiethylamine	C R34; Xn R21/22; Xi R43
80-05-7	4,4'-isopropylidenediphenol (bisphenol A)	Xn R62; Xi R37-41-43 R52 Repr. Cat. 3

· Additional information:

For the wording of the listed risk phrases refer to section 16.

This material is a blend of liquid curing agents and mineral or ceramic powders. The powders do not pose airborne hazards to the user of this formulated product because they are completely encapsulated in the liquid materials. If any of the specific powdered ingredients are hazardous in accordance with Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) they are identified in Section 15 of the MSDS (SARA

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Section 313).

*** 3 Hazards identification**

- **Classification of the substance or mixture**

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

C; Corrosive

R34: Causes burns.

Xn; Harmful

R20/21/22-68/20/21: Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation and in contact with skin.

Xi; Irritant

R43: May cause sensitisation by skin contact.

R10: Flammable.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of international guidelines.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

- **Code letter and hazard designation of product:**

C Corrosive

- **Hazard-determining components of labelling:**

polyethylenepolyamine epoxy adduct
2,2'-iminodiethylamine
4,4'-isopropylidenediphenol (bisphenol A)
aliphatic amine

- **Risk phrases:**

10 Flammable.
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
34 Causes burns.
43 May cause sensitisation by skin contact.
68/20/21 Harmful: possible risk of irreversible effects through inhalation and in contact with skin.

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- **Safety phrases:**
 - 20 When using do not eat or drink.
 - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 - 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 - 60 This material and its container must be disposed of as hazardous waste.
- **Classification system:**
 - **NFPA ratings (scale 0 - 4)**
 - Health = 3
 - Fire = 2
 - Reactivity = 0
 - **HMIS-ratings (scale 0 - 4)**
 - Health = 3
 - Fire = 2
 - Reactivity = 0

4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation is necessary for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air. For added safety, call a doctor. In case of unconsciousness place patient in a stable side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Immediately call a doctor. Drink copious amounts of water and provide fresh air. Immediately call a doctor.

* 5 Firefighting measures

- **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** Mouth respiratory protective device.

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* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Mouth respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
 - **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
 - **Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
 - **Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
-

* 7 Handling and storage

- **Handling:**
 - **Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
Use only in well ventilated areas.
 - **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:** No special requirements.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:** Keep receptacle tightly sealed.
 - **Specific end use(s)** No further relevant information available.
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* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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· Components with limit values that require monitoring at the workplace:	
111-40-0 2,2'-iminodiethylamine	
REL	4 mg/m ³ , 1 ppm Skin
TLV	4.2 mg/m ³ , 1 ppm Skin

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material is based on consideration of the penetration times, rates of diffusion and the degradation of the material.

· **Material of gloves**

The selection of suitable gloves depends not only on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact penetration time has to be determined by the glove manufacturer and has to be observed.

· **Eye protection:**

Tightly sealed goggles

* 9 Physical and chemical properties

· General Information	
· Appearance:	
· Form:	Pasty
· Color:	Light yellow
· Odor:	Amine-like
· Odour threshold:	Not determined.

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· pH-value:	Not determined.
· Change in condition	
· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	133°C
· Flash point:	31°C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	220°C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures is possible.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapor pressure at 20°C:	5.6 hPa
· Density at 20°C:	1.1 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water:	Not miscible or difficult to mix.
· Segregation coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
· Solvent content:	
· Organic solvents:	0.0 %
· Other information	No further relevant information available.

* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 - Reacts with acids.
 - Reacts with strong acids.
- **Conditions to avoid** No further relevant information available.

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- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Nitrogen oxides
Irritant gases/vapors

* 11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

aliphatic amine		
Oral	LD50	2000 mg/kg (rat)
Dermal	LD50	1370 mg/kg (rabbit)
Inhalative	LC50/4 h	3.25 mg/l (mouse)
7631-86-9 silicon dioxide, chemically prepared		
Oral	LD50	10000 mg/kg (rat)
111-40-0 2,2'-iminodiethylamine		
Oral	LD50	1080 mg/kg (rat)
Dermal	LD50	1090 mg/kg (rabbit)
80-05-7 4,4'-isopropylidenediphenol (bisphenol A)		
Oral	LD50	3250 mg/kg (rat)
Dermal	LD50	3000 mg/kg (rabbit)
reactive diluent (epoxy functional)		
Oral	LD50	2050 mg/kg (rat)
Dermal	LD50	2520 mg/kg (rabbit)

· Primary irritant effect:

- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:** The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

* 12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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· **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

· **Additional ecological information:**

- **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or
sewage system.

Must not reach bodies of water or drainage ditch undiluted or
unneutralized.

Danger to drinking water if even small quantities leak into the
ground.

13 Disposal considerations

· **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not
allow product to reach sewage system.

· **Uncleaned packagings:**

- **Recommendation:**

Disposal must be made according to official regulations.

* 14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA 	UN2920
<ul style="list-style-type: none"> · UN proper shipping name · DOT, IMDG, IATA · ADR 	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (polyethylenepolyamine epoxy adduct, 2- DIMETHYLAMINOETHANOL) 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (polyethylenepolyamine epoxy adduct, 2- DIMETHYLAMINOETHANOL)
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT, IMDG, IATA · Class · Label 	8 Corrosive substances. 8+3
<ul style="list-style-type: none"> · ADR · Class · Label 	8 (CF1) Corrosive substances 8+3
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	II

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· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	
Warning: Corrosive substances	
· Danger code (Kemler):	83
· EMS Number:	F-E,S-C
· Segregation groups	Alkalis
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Not applicable.	
· Transport/Additional information:	
· Item:	

* 15 Regulatory information

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· Section 302 (extremely hazardous substances):			
None of the ingredients is listed.			
· Section 313 (Specific toxic chemical listings):			
80-05-7	4,4'-isopropylidenediphenol (bisphenol A)		1-3%
· Sections 311/312 (Specific hazard chemical listings):			
	polyethylenepolyamine epoxy adduct		
111-40-0	2,2'-iminodiethylamine		
80-05-7	4,4'-isopropylidenediphenol (bisphenol A)		
· Sections 311/312 Hazard Categorizations:			
	polyethylenepolyamine epoxy adduct	A = Acute; C = Chronic (health hazards)	>60%
111-40-0	2,2'-iminodiethylamine	A = Acute; C = Chronic (health hazards)	1-3%
80-05-7	4,4'-isopropylidenediphenol (bisphenol A)	A = Acute health hazard	1-3%
· TSCA (Toxic Substances Control Act):			
All ingredients are listed.			
· Proposition 65			
· Chemicals known to cause cancer:			
None of the ingredients is listed.			
· Chemicals known to cause reproductive toxicity for females:			
None of the ingredients is listed.			
· Chemicals known to cause reproductive toxicity for males:			
	reactive diluent (epoxy functional)		<1%

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· Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· IARC (International Agency for Research on Cancer)		
7631-86-9	silicon dioxide, chemically prepared	3 3-10%
· NTP (National Toxicology Program)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value established by ACGIH)		
None of the ingredients is listed.		
· MAK (German Maximum Workplace Concentration)		
reactive diluent (epoxy functional)		3B <1%
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

* 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases	R10	Flammable.
	R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
	R20/22	Harmful by inhalation and if swallowed.
	R21/22	Harmful in contact with skin and if swallowed.
	R34	Causes burns.
	R36/37	Irritating to eyes and respiratory system.
	R37	Irritating to respiratory system.
	R40	Limited evidence of a carcinogenic effect.
	R41	Risk of serious damage to eyes.
	R43	May cause sensitisation by skin contact.
	R52	Harmful to aquatic organisms.
	R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R62	Possible risk of impaired fertility.
	R68	Possible risk of irreversible effects.
R68/20/21	Harmful: possible risk of irreversible effects through inhalation and in contact with skin.	

· Department issuing MSDS: Technical department

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- **Contact:** Dr. John F. Plummer
- *** Data compared to the previous version altered.**

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