

acc. to ISO/DIS 11014

Printing date 12/16/2009 Version 2 Reviewed on 12/16/2009

1 Identification of substance

· Trade name:

Mereco CLN-845 Activator

· Application of the substance / the preparation

Epoxy curing agent

· 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 information:

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/Data on components

· Chemical characterization

· Description:

Mixture of the substances listed below with non-hazardous

additions.

| · Components: | |
|---------------------|-------------------------------|
| Mineral filler | Xi; R 36/37/38 |
| aliphatic polyamine | C, Xn; R 21/22-34-48/20-65 |
| Solvent | Xn, Xi; R 20/22-36/38-43 |
| aliphatic amine | C, Xn; R 21/22-34-43-52/53 |
| aliphatic amine | C, Xn; R 22-34-43-53 |
| Additive | C, Xn, N; R 22-34-62-50/53-63 |
| inorganic filler | Xi; R 36/37 |

· 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

Section 313).

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* 3 Hazards identification

· Hazard description:

Information pertaining to particular dangers for man and environment:

C Corrosive

The product has to be labelled due to the calculation procedure of

international guidelines. R 34 Causes burns.

R 37 Irritating to respiratory system.

R 43 May cause sensitisation by skin contact.

R 48/20 Harmful: danger of serious damage to health by prolonged

exposure through inhalation.

R 52/53 Harmful to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

R 65 Harmful: may cause lung damage if swallowed.

• Classification system: The classification was made according to the latest editions of

international substances lists, and expanded upon from company

and literature data.

· NFPA ratings (scale 0 - 4) Health = 3

Fire = 1

Reactivity = 0

· HMIS-ratings (scale 0 - 4) Health = *3

Fire = 1Reactivity = 0

4 First aid measures

· General information: Immediately remove any clothing soiled by the product.

• 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: Drink copious amounts of water and provide fresh air. Immediately

call a doctor.

5 Fire fighting measures

· Suitable extinguishing

agents:

CO2, extinguishing powder or water spray. Fight larger fires with

water spray or alcohol resistant foam.

• **Protective equipment:** No special measures required.

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* 6 Accidental release measures

· Person-related safety

precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental

protection:

Inform respective authorities in case of seepage into water course

or sewage system.

Do not allow to enter sewers/ surface or ground water.

· Measures for cleaning/

collecting:

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.

* 7 Handling and storage

· Handling:

· Information for safe

handling:

Store in cool, dry place in tightly closed receptacles.

Use only in well ventilated areas.

· Information about protection against

explosions and fires:

No special measures required.

· Storage:

· Requirements to be met by

storerooms and

receptacles:
Information about storage

No special requirements.

in one common storage

facility:

Not required.

· Further information about

storage conditions:

Keep receptacle tightly sealed.

* 8 Exposure controls and personal protection

· Additional information about

design of technical systems: No further data; see item 7.

· Components with limit values that require monitoring at the workplace:

100-51-6 Benzyl alcohol

WEEL 44 mg/m³, 10 ppm

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

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· 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 | | |
|---|---|--|
| · Form: · Color: · Odor: | Pasty Light gray Ammonia-like | |
| Change in condition Melting point/Melting range. Boiling point/Boiling range: | | |
| · Flash point: | 121°C | |
| · Auto igniting: | Product is not self-igniting. | |
| · Danger of explosion: | Product does not present an explosion hazard. | |
| · Density at 20°C: | 2.2 g/cm³ | |

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| | | (Outlier Home page) |
|---|-----------------------------------|----------------------|
| · Solubility in / Miscibility with · Water: | Not miscible or difficult to mix. | |
| Solvent content: Organic solvents: | 3.7 % | |

10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· Materials to be avoided:

Reacts with acids.

· Dangerous reactions

Reacts with strong acids.

· Dangerous products of

decomposition:

Nitrogen oxides Irritant gases/vapors

* 11 Toxicological information

· Acute toxicity:

| · LD/LC50 values that are relevant for classification: | | | |
|--|-------------------------|---|--|
| 100-51-0 | 100-51-6 Benzyl alcohol | | |
| Oral | LD50 | 1230 mg/kg (rat) | |
| Dermal | LD50 | 2000 mg/kg (rabbit) | |
| 2855-13 | -2 3-aı | minomethyl-3,5,5-trimethylcyclohexylamine | |
| Oral | LD50 | 1030 mg/kg (rat) | |
| Dermal | LD50 | 2.2 mg/kg (rabbit) | |
| 25620-5 | 8-0 tri | methylhexane-1,6-diamine | |
| Oral | LD50 | 900 mg/kg (rat) | |
| 84852-1 | 5-3 4-1 | nonylphenol, branched | |
| Oral | LD50 | 580 mg/kg (rat) | |
| | | 2140 mg/kg (rabbit) | |
| 7631-86-9 silicon dioxide, chemically prepared | | | |
| Oral | LD50 | 10000 mg/kg (rat) | |

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.

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· Additional toxicological information:

(Contd. from page 5)

The product shows the following dangers according to internally

approved calculation methods for preparations:

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

· Ecotoxical effects:

· Remark: Harmful to fish

· 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.

Harmful to aquatic organisms

13 Disposal considerations

· Product:

• 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

· DOT regulations:

· Hazard class:

Identification number: UN1760Packing group: III

· Proper shipping name (technical name): CORROSIVE LIQUID, N.O.S. (4-nonylphenol,

branched, polyoxypropylene diamine)

· Label 8

· Land transport ADR/RID (cross-border):

ADR/RID class:
 8 (C9) Corrosive substances

Danger code (Kemler): 80UN-Number: 1760

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Packaging group:
 Description of goods:
 III
 1760 CORROSIVE LIQUID, N.O.S. (4-

NONYLPHENOL, BRANCHED, POLYOXYPROPYLENE DIAMINE)

· Maritime transport IMDG:

IMDG Class:
UN Number:
Label
Packaging group:
EMS Number:
Marine pollutant:

• Proper shipping name: CORROSIVE LIQUID, N.O.S. (4-nonylphenol,

branched, polyoxypropylene diamine)

· Air transport ICAO-TI and IATA-DGR:

· ICAO/IATA Class: 8
 · UN/ID Number: 1760
 · Label 8
 · Packaging group: III

• Proper shipping name: CORROSIVE LIQUID, N.O.S. (4-nonylphenol,

branched, polyoxypropylene diamine)

* 15 Regulations

· Sara

| · Section 302 (extremely hazardous substances): |
|---|
| None of the ingredients is listed. |
| . Section 313 (Specific toxic chemical listings): |

None of the ingredients is listed by CAS number.

None of the ingredients is listed by CAS number.

| | · Sections 31 1/312 (Specific hazard chemical listings): | | |
|---|--|--|--|
| Ī | 9046-10-0 polyoxypropylene diamine | | |
| Ī | 2855-13-2 | 3-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine | |
| Ī | 25620-58-0 | trimethylhexane-1,6-diamine | |
| Ī | 84852-15-3 | 4-nonylphenol, branched | |

| , , , , , , , , , , , , , , , , , , , | | | | |
|---------------------------------------|--|------------------------------------|--------|--|
| · Section | · Sections 311/312 Hazard Categorizations: | | | |
| 9046-10-0 | polyoxypropylene diamine | Category = A (Acute health hazard) | 10-20% | |
| 2855-13-2 | 3-aminomethyl-3,5,5- trimethylcyclohexylamine | A = Acute health hazard | 3-10% | |
| 25620-58-0 | trimethylhexane-1,6-diamine | A = Acute health hazard | 1-3% | |
| 84852-15-3 | 4-nonylphenol, branched | A = Acute health hazard | 1-3% | |

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Printing date 12/16/2009 Version 2 Reviewed on 12/16/2009 Trade name: Mereco CLN-845 Activator (Contd. from page 7) · 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: None of the ingredients is listed. · 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 1-3% · NTP (National Toxicology Program) None of the ingredients is listed. · TLV (Threshold Limit Value established by ACGIH) 1344-28-1 aluminum oxide A4 >60% · MAK (German Maximum Workplace Concentration) 1344-28-1 aluminum oxide >60% · 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. · Product related hazard informations: The product has been classified and marked in accordance with directives on hazardous materials. · Hazard symbols: C Corrosive · Hazard-determining components of labelling: polyoxypropylene diamine Benzyl alcohol 3-aminomethyl-3,5,5-trimethylcyclohexylamine trimethylhexane-1,6-diamine · Risk phrases: Causes burns. (Contd. on page 9)

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| | | |

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|--------------------|----------------|-----------|
|--------------------|----------------|-----------|

| | (Contd. from page 8 37 Irritating to respiratory system. 43 May cause sensitisation by skin contact. 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation. 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 65 Harmful: may cause lung damage if swallowed. |
|-------------------|---|
| · Safety phrases: | 1/2 Keep locked up and out of the reach of children. 13 Keep away from food, drink and animal feedingstuffs. 20 When using do not eat or drink. 25 Avoid contact with eyes. 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. |
| | 36/37/39 Wear suitable protective clothing, gloves and eye/face protection. |
| | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| | Dispose of this material and its container to hazardous or special waste collection point. |
| | 60 This material and its container must be disposed of as hazardous waste. |
| | If swallowed, rinse mouth with water (only if the person is |

* 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.

conscious).

|) | | ····· |
|----------------------|---|--|
| · Relevant R-phrases | 20/22 21/22 22 34 36/37 36/37/38 | Harmful by inhalation and if swallowed. Harmful in contact with skin and if swallowed. Harmful if swallowed. Causes burns. Irritating to eyes and respiratory system. Irritating to eyes, respiratory system and skin. |
| | 36/38 43 | Irritating to eyes and skin. May cause sensitisation by skin contact. |
| | 48/20 | Harmful: danger of serious damage to health by prolonged exposure through inhalation. |
| | 50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| | | (Contd. on page 10) |

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| | | | (Contd. from page 9) |
| | 52/53 | Harmful to aquatic org adverse effects in the | ganisms, may cause long-term aquatic environment. |
| | 53 | May cause long-term environment. | adverse effects in the aquatic |
| | 62 | Possible risk of impair | red fertility. |
| | 63 | Possible risk of harm | |
| | 65 | Harmful: may cause le | ung damage if swallowed. |
| · Department issuing MSDS: | Techni | ical department | |
| Contact: * Data compared to the previous version altered. | | nn F. Plummer | |





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1 Identification of substance

· Trade name:

Mereco CLN-845 Base

 Application of the substance / the preparation

Epoxy resin

· 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 information:

Telephone: (401) 822-9300

2 Composition/Data on components

· Chemical characterization

· Description:

Mixture of the substances listed below with non-hazardous

additions.

| · Components: | | | | |
|---------------|--|-------------------------|--|--|
| | Mineral filler | Xi; R 36/37/38 | | |
| | Diglycidyl Ether Bisphenol-A epoxy resin | Xi, N; R 36/38-43-51/53 | | |
| | Polyglycol diepoxide resin | Xi; R 36/38 | | |
| | inorganic filler | Xi; R 36/37 | | |
| 84-74-2 | dibutyl phthalate | T, N; R 61-62-50 | | |

Additional information:

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

This resin is a blended mixture of liquid resins and mineral, ceramic or organic fillers. These fillers do not pose airborne hazards to the user of this formulated product because they are completely encapsulated in the resin mass. If any of the specific fillers 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 this MSDS (SARA Section 313).

3 Hazards identification

· Hazard description:

T Toxic

 Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of

international guidelines.

R 61 May cause harm to the unborn child.

R 36/37/38 Irritating to eyes, respiratory system and skin.

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Trade name: Mereco CLN-845 Base

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R 43 May cause sensitisation by skin contact.

R 62 Possible risk of impaired fertility.

R 52/53 Harmful to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

Contains epoxy constituents. See information supplied by the

manufacturer.

· Classification system: The classification was made according to the latest editions of

international substances lists, and expanded upon from company

and literature data.

· NFPA ratings (scale 0 - 4) Health = 2

Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4) Health = *2

Fire = 1 Reactivity = 0

4 First aid measures

· 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. If

symptoms persist, consult a doctor.

• After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

· Suitable extinguishing

agents:

CO2, extinguishing powder or water spray. Fight larger fires with

water spray or alcohol resistant foam.

• Protective equipment: No special measures required.

6 Accidental release measures

· Person-related safety

precautions:

Not required.

· Measures for environmental

protection:

Inform respective authorities in case of seepage into water course

or sewage system.

Do not allow to enter sewers/ surface or ground water.

· Measures for cleaning/

collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders,

universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

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· Additional information:

This material contains dibutyl phthalate which is listed as a hazardous material according to CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980; 40 CFR 302.4). This material has a Reportable Quantity (RQ) of 100 lb (for dibutyl phthalate).

* 7 Handling and storage

· Handling:

· Information for safe

handling:

Store in cool, dry place in tightly closed receptacles.

Use only in well ventilated areas.

Information about protection against

explosions and fires:

No special measures required.

· 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.

8 Exposure controls and personal protection

· Additional information about

design of technical systems: No further data; see item 7.

· Components with limit values that require monitoring at the workplace:

84-74-2 dibutyl phthalate

PEL 5 mg/m³ REL 5 mg/m³ TLV 5 mg/m³

· 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.

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Trade name: Mereco CLN-845 Base

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· 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 | | | | |
|---|---|--|--|--|
| · Form: · Color: · Odor: | Pasty Light gray Mild | | | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | Undetermined. 201°C | | | |
| · Flash point: | 154°C | | | |
| · Ignition temperature: | 390°C | | | |
| · Auto igniting: | Product is not self-igniting. | | | |
| · Danger of explosion: | Product does not present an explosion hazard. | | | |
| · Vapor pressure at 20°C: | 7.5 hPa | | | |
| · Density at 20°C: | 2 g/cm³ | | | |
| · Solubility in / Miscibility with · Water: | Not miscible or difficult to mix. | | | |
| Solvent content: Organic solvents: | 0.0 % | | | |

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10 Stability and reactivity

Thermal decomposition /

conditions to be avoided: No decomposition if used according to specifications.

Materials to be avoided:Dangerous reactions

Reacts with amines.

· Dangerous products of

decomposition: Irritant gases/vapors

* 11 Toxicological information

· Acute toxicity:

| · LD/LC50 values that are relevant for classification: | | | | | | | |
|--|------|-------------------------|--|--|--|--|--|
| 84-74-2 dibutyl phthalate | | | | | | | |
| Oral | LD50 | 8000 mg/kg (rat) | | | | | |
| Dermal | LD50 | 50 20000 mg/kg (rabbit) | | | | | |
| polyglycol diepoxide resin | | | | | | | |
| Oral | LD50 | 4000 mg/kg (rat) | | | | | |
| Dermal | LD50 | 2000 mg/kg (rat) | | | | | |
| 7631-86-9 silicon dioxide, chemically prepared | | | | | | | |
| Oral | LD50 | 10000 mg/kg (rat) | | | | | |

Primary irritant effect:

· on the skin:

Irritant to skin and mucous membranes.

on the eye:

Irritating effect.

· Sensitization:

Sensitization possible through skin contact.

· Additional toxicological

information:

The product shows the following dangers according to internally

approved calculation methods for preparations:

Irritant

12 Ecological information

· Ecotoxical effects:

· Remark: Harmful to fish

· 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.

Danger to drinking water if even small quantities leak into the

ground.

Harmful to aquatic organisms

_____USA ___

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Trade name: Mereco CLN-845 Base

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13 Disposal considerations

· Product:

· 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

DOT regulations:

· Hazard class:

Not Regulated

· Hazardous substance:

100 lbs, 45.4 kg

The CERCLA Reportable Quantity (RQ) for this material is 100 lb, minimum. Quantities greater

than 100 lb must be shipped as:

UN 3082 Environmentally hazardous substances,

liquid, n.o.s. (dibutyl phthalate)

Class = 9 Packing Group III Label = 9

· Proper shipping name (technical name): Not Regulated

· Land transport ADR/RID (cross-border):

· ADR/RID class:

Not Regulated

· Maritime transport IMDG:

· IMDG Class:

· Remarks:

-

Not Regulated

· Marine pollutant:

No

· Air transport ICAO-TI and IATA-DGR:

· ICAO/IATA Class:

Not Regulated

Quantities less than 100 lb are not regulated for air

shipment.

For quantities greater than 100 lb, the air shipment

classification is:

UN3082 Environmentally hazardous substances,

liquid, n.o.s. (dibutyl phthalate)

Class = 9 Packing Group III Label = 9

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Version 3 Reviewed on 12/16/2009 Printing date 12/16/2009 Trade name: Mereco CLN-845 Base (Contd. from page 6) * 15 Regulations · Sara · Section 302 (extremely hazardous substances): None of the ingredients is listed. · Section 313 (Specific toxic chemical listings): 84-74-2 dibutyl phthalate 3-10% · Sections 31 1/312 (Specific hazard chemical listings): 84-74-2 dibutyl phthalate · Sections 311/312 Hazard Categorizations: 84-74-2 dibutyl phthalate Category = C (Chronic health hazard) 3-10% · 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: None of the ingredients is listed. · Chemicals known to cause developmental toxicity: None of the ingredients is listed. · Carcinogenic categories · EPA (Environmental Protection Agency) 84-74-2 dibutyl phthalate D · IARC (International Agency for Research on Cancer) 7631-86-9 silicon dioxide, chemically prepared 3 1-3% · NTP (National Toxicology Program) None of the ingredients is listed. · TLV (Threshold Limit Value established by ACGIH) 1344-28-1 aluminum oxide A4 >60% · MAK (German Maximum Workplace Concentration) 1344-28-1 aluminum oxide 2 > 60% · NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients is listed. (Contd. on page 8)

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Trade name: Mereco CLN-845 Base

(Contd. from page 7)

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Product related hazard

informations:

The product has been classified and marked in accordance with

directives on hazardous materials.

Hazard symbols: T Toxic

· Hazard-determining

components of labelling:

Diglycidyl ether Bisphenol-A epoxy resin

dibutyl phthalate

• *Risk phrases:* 61 May cause harm to the unborn child.

36/37/38 Irritating to eyes, respiratory system and skin.
43 May cause sensitisation by skin contact.

62 Possible risk of impaired fertility.

52/53 Harmful to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

• Safety phrases: 2 Keep out of the reach of children.

28 After contact with skin, wash immediately with plenty of soap

and water.

37/39 Wear suitable gloves and eye/face protection.61 Avoid release to the environment. Refer to special

instructions/safety data sheets.

· Special labeling of certain

preparations:

Contains epoxy constituents. See information supplied by the

manufacturer.

- · National regulations:
 - · Other regulations, limitations and prohibitive regulations
 - · Please note:

This material contains dibutyl phthalate which is listed as a hazardous material according to CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980; 40 CFR 302.4). This material has a Reportable Quantity (RQ) of

100 lb (for dibutyl phthalate).

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 R-phrases* 36/37 Irritating to eyes and respiratory system.

36/37/38 Irritating to eyes, respiratory system and skin.

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

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Material Safety Data Sheet acc. to ISO/DIS 11014

| Printing date 12/16/2009 | | Version 3 | Reviewed on 12/16/2009 | | | |
|--|----------------------|---|--|--|--|--|
| Trade name: Mereco CLN-845 Base | | | | | | |
| | | | (Contd. from page 8) | | | |
| | 50 | Very toxic to aquatic o | | | | |
| | 51/53 | Toxic to aquatic organ effects in the aquatic e | isms, may cause long-term adverse environment. | | | |
| | 61 | May cause harm to the | | | | |
| | 62 | Possible risk of impair | | | | |
| · Department issuing MSDS: | Technical department | | | | | |
| Contact: * Data compared to the previous version altered. | Dr. John F. Plummer | | | | | |