



Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/21/2010

Version 2

Reviewed on 01/21/2010

1 Identification of substance

- **Trade name:** **Metregrip 355 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: (401) 822-9300

2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with non-hazardous additions.

· Components:		
	Fatty amidoamine resin	C, Xi; R 34-37/38
68953-36-6	Polyamidoamine resin	C, Xi; R 34-37/38
112-57-2	3,6,9-triazaundecamethylenediamine	C, Xn, N; R 21/22-34-43-51/53

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard description:** C Corrosive
- **Information pertaining to particular dangers for man and environment:**

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 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **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

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- **HMIS-ratings (scale 0 - 4)** Health = 3
Fire = 1
Reactivity = 0
-

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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.
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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:** 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.
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* 7 Handling and storage

- **Handling:**
 - **Information for safe handling:** Store in cool, dry place in tightly closed receptacles.
Use only in well ventilated areas.
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· **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:**

112-57-2 3,6,9-triazaundecamethylenediamine	
WEEL	5 mg/m ³ Skin; DSEN

· **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

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- **Penetration time of glove material** application.
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:	Liquid
· Color:	Amber colored
· Odor:	Amine-like
· Change in condition	
· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	> 218°C
· Flash point:	111°C
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Density at 20°C:	1 g/cm ³
· Solubility in / Miscibility with	
· Water:	Not miscible or difficult to mix.
· Solvent content:	
· Organic solvents:	0.0 %

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 acids.
Reacts with strong acids.
 - **Dangerous products of decomposition:** Nitrogen oxides
Irritant gases/vapors
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* 11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

112-57-2 3,6,9-triazaundecamethylenediamine

Dermal LD50 660 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:

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

· Ecotoxicological 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.

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14 Transport information

<ul style="list-style-type: none"> · DOT regulations: · Hazard class: - Not Regulated · Proper shipping name (technical name): Not Regulated 	
<ul style="list-style-type: none"> · Land transport ADR/RID (cross-border): · ADR/RID class: - Not Regulated 	
<ul style="list-style-type: none"> · Maritime transport IMDG: · IMDG Class: - Not Regulated · Marine pollutant: No 	
<ul style="list-style-type: none"> · Air transport ICAO-TI and IATA-DGR: · ICAO/IATA Class: - Not Regulated 	

* 15 Regulations

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<ul style="list-style-type: none"> · Section 302 (extremely hazardous substances): 			
None of the ingredients is listed.			
<ul style="list-style-type: none"> · Section 313 (Specific toxic chemical listings): 			
None of the ingredients is listed by CAS number.			
<ul style="list-style-type: none"> · Sections 311/312 (Specific hazard chemical listings): 			
All ingredients are listed.			
<ul style="list-style-type: none"> · Sections 311/312 Hazard Categorizations: 			
68953-36-6	Polyamidoamine resin	A = Acute Health Hazard	40-60%
68991-84-4	Fatty amidoamine resin	A = Acute Health Hazard	40-60%
112-57-2	3,6,9-triazaundecamethylenediamine	A = Acute, C = Chronic (health hazards)	3-10%
<ul style="list-style-type: none"> · TSCA (Toxic Substances Control Act): 			
All ingredients are listed.			
<ul style="list-style-type: none"> · Proposition 65 			
<ul style="list-style-type: none"> · Chemicals known to cause cancer: 			
None of the ingredients is listed.			
<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for females: 			
None of the ingredients is listed.			

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· 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)	
None of the ingredients is listed.	
· 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)	
None of the ingredients is listed.	
· 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:** 3,6,9-triazaundecamethylenediamine
Polyamidoamine resin
Fatty amidoamine resin
- Risk phrases:** 34 Causes burns.
37 Irritating to respiratory system.
43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 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.

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- | | |
|----|-------------------------------------------------------------------------------------------------------------|
| 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. |
-

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**
 - 21/22 Harmful in contact with skin and if swallowed.
 - 34 Causes burns.
 - 37/38 Irritating to respiratory system and skin.
 - 43 May cause sensitisation by skin contact.
 - 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Department issuing MSDS:** Technical department
- **Contact:** Dr. John F. Plummer
- *** Data compared to the previous version altered.**



MEREKO

Material Safety Data Sheet

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Printing date 01/21/2010

Version 2

Reviewed on 01/21/2010

1 Identification of substance

- **Trade name:** **Metregrip 355 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:	
Diglycidyl Ether Bisphenol-A epoxy resin	Xi, N; R 36/38-43-51/53
Reactive diluent	Xn, Xi; R 22-36/37/38-43

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Hazard description:** Xi Irritant
N Dangerous for the environment
- **Information pertaining to particular dangers for man and environment:** The product has to be labelled due to the calculation procedure of international guidelines.
R 36/38 Irritating to eyes and skin.
R 43 May cause sensitisation by skin contact.
R 51/53 Toxic 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 = 1
Reactivity = 0

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Trade name: Metregrip 355 Base

- **HMIS-ratings (scale 0 - 4)**
- | | |
|------------|-----|
| Health | = 2 |
| Fire | = 1 |
| Reactivity | = 0 |

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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).

* 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.

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- **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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
 - **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:** Not required.
 - **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.

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 · **Eye protection:** Tightly sealed goggles

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 * **9 Physical and chemical properties**

· General Information	
· Form:	Liquid
· Color:	Clear
· Odor:	Mild
· Change in condition	
· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	201°C
· Flash point:	94°C
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Density at 20°C:	1.16 g/cm ³
· Solubility in / Miscibility with	
· Water:	Not miscible or difficult to mix.
· Solvent content:	
· Organic solvents:	0.0 %

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:**
 - **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:

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Trade name: Metregrip 355 Base

Irritant

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12 Ecological information

- **Ecotoxicological effects:**
 - **Remark:** Toxic for 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.
Also poisonous for fish and plankton in water bodies.
Toxic for 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:	- Not Regulated
· Proper shipping name (technical name):	Not Regulated
· Land transport ADR/RID (cross-border):	
· ADR/RID class:	- Not Regulated
· Maritime transport IMDG:	
· IMDG Class:	- Not Regulated
· Marine pollutant:	No
· Air transport ICAO-TI and IATA-DGR:	
· ICAO/IATA Class:	- Not Regulated

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- **Environmental hazards:** Product contains environmentally hazardous substances: Diglycidyl ether Bisphenol-A epoxy resin
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* 15 Regulations

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· 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.		
· Sections 311/312 (Specific hazard chemical listings):		
reactive diluent (epoxy functional)		
· Sections 311/312 Hazard Categorizations:		
reactive diluent (epoxy functional)	A = Acute 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)		
None of the ingredients is listed.		
· IARC (International Agency for Research on Cancer)		
None of the ingredients is listed.		
· 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)		
None of the ingredients is listed.		

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· 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:** Xi Irritant
N Dangerous for the environment
- Hazard-determining components of labelling:** Diglycidyl ether Bisphenol-A epoxy resin reactive diluent (epoxy functional)
- Risk phrases:** 36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
51/53 Toxic 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.

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** 22 Harmful if swallowed.
36/37/38 Irritating to eyes, respiratory system and skin.
36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Department issuing MSDS:** Technical department
- Contact:** Dr. John F. Plummer
- * Data compared to the previous version altered.**