

acc. to ISO/DIS 11014

Reviewed on 02/07/2012

### Printing date 02/07/2012 Version 4

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

· Product identifier		
<ul> <li>Trade name:</li> <li>Application of the substance / the preparation</li> </ul>	Metrethane 4717 Base	
<ul> <li>Details of the supplier of the</li> <li>Manufacturer/Supplier:</li> </ul>	safety data sheet Mereco Division Metachem Resins Corporation 1505 Main Street West Warwick, RI 02893 USA	Phone +1 / 401 / 822-9300
<ul> <li>Information department:</li> <li>Emergency telephone number:</li> </ul>	Technical department. email = <u>info@mereco.com</u> Telephone: (401) 822-9300	

## 2 Composition/information on ingredients

#### · Chemical characterization: Mixtures

Description:

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

· Components:		
9016-87-9	diphenylmethanediisocyanate,	Xn R20-40-48/20; Xi R36/37/38-42/43
	isomers and homologues	Carc. Cat. 3
101-68-8	4,4'-methylenediphenyl diisocyanate	Xn R20-40-48/20; Xi R36/37/38-42/43 Carc. Cat. 3
• Additional information: For the wording of the listed risk phrases refer to section 16.		

#### 3 Hazards identification

#### · Classification of the substance or mixture

<ul> <li>Classification acc Xn; Harmful</li> </ul>	ording to Directive 67/548/EEC or Directive 1999/45/EC
R20-40-48/20:	Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Xi; Irritant R36/37/38-42/43:	Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact.
	(Contd. on page 2) USA —



Printing date 02/07/2012

Version 4

Reviewed on 02/07/2012

### Trade name: Metrethane 4717 Base

· Information concerning	(Contd. from page 1)	
particular hazards for human and environment: · Classification system:	The product has to be labelled due to the calculation procedure of international guidelines. Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided. The classification was made according to the latest editions of international substances lists, and expanded upon from company	
	and literature data.	
· Label elements		
<ul> <li>Labelling according to EU guidelines:</li> </ul>	The product has been classified and marked in accordance with directives on hazardous materials.	
<ul> <li>Code letter and hazard designation of product:</li> </ul>	Xn Harmful	
<ul> <li>Hazard-determining components of labelling:</li> </ul>	diphenylmethanediisocyanate, isomers and homologues 4,4'-methylenediphenyl diisocyanate	
· Risk phrases:	<ul> <li>Harmful by inhalation.</li> <li>36/37/38 Irritating to eyes, respiratory system and skin.</li> <li>Limited evidence of a carcinogenic effect.</li> <li>May cause sensitisation by inhalation and skin contact.</li> <li>Harmful: danger of serious damage to health by prolonged exposure through inhalation.</li> </ul>	
<ul> <li>Safety phrases:</li> </ul>	<ol> <li>Keep locked up and out of the reach of children.</li> <li>Do not breathe gas/fumes/vapour/spray.</li> <li>36/37 Wear suitable protective clothing and gloves.</li> <li>In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</li> </ol>	
<ul> <li>Special labelling of certain preparations:</li> </ul>	Contains isocyanates. See information supplied by the manufacturer.	
<ul> <li>Classification system:</li> <li>NFPA ratings (scale 0 - 4)</li> </ul>	Health = 3 Fire = 1 Reactivity = 1 The substance demonstrates unusual reactivity with water. (Contd. on page 3) USA	

Printing date 02/07/2012	Version 4	Reviewed on 02/07/2012
Trade name: Metrethane 4717 Base		
		(Contd. from page 2
<ul> <li>HMIS-ratings (scale 0 - 4)</li> </ul>	Health $=$ *3	
	Fire = 1 Reactivity = 1	
4 First aid measures		
· General information:	Provide oxygen treatment if affe breathing. Symptoms of poisoning may eve therefore medical observation is after the accident.	
	Seek immediate medical advice	-
· After inhalation:	Supply fresh air. For added safety, call a doctor. In case of unconsciousness place patient in a stable side positior for transportation.	
· After skin contact:	Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.	
· After eye contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.	
<ul> <li>After swallowing:</li> </ul>	Induce vomiting, if person is cor	

## 5 Firefighting measures

<ul> <li>Suitable extinguishing</li> </ul>	
agents:	CO2, sand, extinguishing powder. Do not use water. Foam
For safety reasons unsuitable	)
extinguishing agents:	Water
<ul> <li>Special hazards arising from</li> </ul>	
the substance or mixture	Formation of toxic gases is possible during heating or in case of fire.
<ul> <li>Protective equipment:</li> </ul>	Mouth respiratory protective device.
· Additional information	Cool endangered receptacles with water spray.

## \* 6 Accidental release measures

<ul> <li>Personal precautions, protective equipment and</li> </ul>	
emergency procedures	Mouth respiratory protective device.
Environmental precautions:	Do not allow to enter sewers/ surface or ground water.
<ul> <li>Methods and material for</li> </ul>	
containment and cleaning up:	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.
	(Contd. on page 4)
	USA —

Printing date 02/07/2012	Version 4	Reviewed on 02/07/2012
Trade name: Metrethane 4717 Base		
· Reference to other sections	See Section 7 for information on sa	(Contd. from page 3
	See Section 8 for information on po See Section 13 for disposal inform	ersonal protection equipment.
7 Handling and storage		
· Handling:		
· Precautions for safe		
handling	Store in cool, dry place in tightly clo	osed receptacles.
	Ensure good ventilation/exhaustion	n at the workplace.
	Prevent formation of aerosols.	
Information about	Use only in well ventilated areas.	
<ul> <li>Information about protection against</li> </ul>		
explosions and fires:	Protect from heat.	
	Emergency cooling must be availa	ble in case of nearby fire.
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	Not required.	
storage conditions:	Keep receptacle tightly sealed.	
<b>..</b>	Protect from humidity and water.	
	Store in cool, dry conditions in well	
	Store in a cool place. Heat will incr	ease pressure and may lead to
Spacific and usa(a)	the receptacle bursting. No further relevant information ava	vilable
<ul> <li>Specific end use(s)</li> </ul>	ino further relevant information ava	

### 8 Exposure controls/personal protection

### · Additional information about

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

· Com	<ul> <li>Components with limit values that require monitoring at the workplace:</li> </ul>		
101-	101-68-8 4,4'-methylenediphenyl diisocyanate		
	PEL Short-term value: C 0.2 mg/m <sup>3</sup> , C 0.02 ppm		
REL	REL Short-term value: C 0.2* mg/m <sup>3</sup> , C 0.02* ppm		
	Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm		
	*10-min		
TLV	0.051 mg/m <sup>3</sup> , 0.005 ppm		
· Ad	ditional information:	The lists that were valid during the creation were used as basis.	
		(Contd. on page 5)	
		USA —	

acc. to ISO/DIS 11014

Printing date 02/07/2012

Version 4

Reviewed on 02/07/2012

### Trade name: Metrethane 4717 Base

	(Contd. from page 4)
<ul> <li>Personal protective equipmen</li> <li>General protective and</li> </ul>	nt:
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.
<ul> <li>Protection of hands:</li> </ul>	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.
<ul> <li>Penetration time of glove material</li> </ul>	The exact penetration time has to be determined by the glove
· Eye protection:	manufacturer and has to be observed. Tightly sealed goggles
-	

### \* 9 Physical and chemical properties

· General Information		
· Appearance:		
· Form:	Liquid	
· Color:	Amber colored	
· Odor:	Mild	
· Odour threshold:	Not determined.	
· pH-value:	Not determined.	
· Change in condition		
• Melting point/Melting range:	Undetermined.	
· Boiling point/Boiling range:	Undetermined.	
· Flash point:	> 121°C	
· Flammability (solid, gaseous):	Not applicable.	
		(Contd. on page

\_\_\_\_\_USA \_\_\_\_

acc. to ISO/DIS 11014

Printing date 02/07/2012

Version 4

Reviewed on 02/07/2012

### Trade name: Metrethane 4717 Base

	(Contd. from page 5
· Ignition temperature:	400°C
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	0.4 Vol %
· Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20°C:	0.98 g/cm <sup>3</sup>
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water:	Hydrolized.
· Segregation coefficient (n-octonol/w	<i>vater):</i> Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
· Solvent content:	
<ul> <li>Organic solvents:</li> </ul>	0.0 %
Other information	No further relevant information available.

## \* 10 Stability and reactivity

<ul> <li>Thermal decomposition / conditions to be avoided:</li> <li>Possibility of hazardous</li> </ul>	No decomposition if used according to specifications.	
reactions	Reacts with water.	
	Reacts with amines.	
<ul> <li>Conditions to avoid</li> </ul>	No further relevant information available.	
<ul> <li>Incompatible materials:</li> </ul>	Protect from humidity and water.	
-	Reacts with water.	
<ul> <li>Hazardous decomposition</li> </ul>		
products:	Nitrogen oxides	
-	Isocyanate	
	Irritant gases/vapors	
	(possible HCN)	
		— USA —

(Contd. on page 7)

acc. to ISO/DIS 11014

Printing date 02/07/2012

Version 4

Reviewed on 02/07/2012

#### Trade name: Metrethane 4717 Base

(Contd. from page 6)

#### 11 Toxicological information

#### · Acute toxicity:

· LD/LC	C50 va	lues that are rel	evant for classification:
101-68-	8 4,4 <b>'</b> -ı	methylenediphe	nyl diisocyanate
Oral	LD50	2200 mg/kg (mo	buse)
		> 10000 mg/kg	(rat)
Dermal	LD50	> 6200 mg/kg (r	abbit)
· Prima	ry irrit	ant effect:	
· on t	he ski	n:	Irritant to skin and mucous membranes.
	he eye		Irritating effect.
Sensitization:		n:	Sensitization possible through inhalation.
			Sensitization possible through skin contact.
· Additio	nal to	cicological	
informa	ntion:		The product shows the following dangers according to internally approved calculation methods for preparations: Harmful Irritant

#### \* 12 Ecological information

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- *Bioaccumulative potential* No further relevant information available.
- · Additional ecological information:
  - General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water
     Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

#### 13 Disposal considerations

<ul> <li>Waste treatment methods</li> <li>Recommendation:</li> </ul>	Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
<ul> <li>Uncleaned packagings:</li> <li>Recommendation:</li> </ul>	Disposal must be made according to official regulations.
	03A

(Contd. on page 8)

acc. to ISO/DIS 11014

Printing date 02/07/2012	
--------------------------	--

Version 4

Reviewed on 02/07/2012

## Trade name: Metrethane 4717 Base

(Contd. from page 7)

### \* 14 Transport information

· UN-Number		
· DOT, ADR, ADN, IMDG, IATA	Not Applicable	
· UN proper shipping name		
· DOT	Not Regulated	
· ADR, ADN, IMDG, IATA	Not Applicable	
<ul> <li>Transport hazard class(es)</li> </ul>		
· DOT, ADR, ADN, IMDG, IATA · Class	Not Applicable	
<ul> <li>Packing group</li> <li>DOT, ADR, IMDG, IATA</li> </ul>	Not Applicable	
<ul> <li>Environmental hazards:</li> <li>Marine pollutant:</li> </ul>	No	
<ul> <li>Special precautions for user</li> </ul>	Not applicable.	
· Transport in bulk according to Annex	ĸ II of	
MARPOL73/78 and the IBC Code	Not applicable.	

## \* 15 Regulatory information

#### · Sara

· Sectio	n 302 (extremely hazardous substar	nces):	
None of the	e ingredients is listed.		
· Sectio	n 313 (Specific toxic chemical listing	gs):	
9016-87-9	diphenylmethanediisocyanate, isomers and homologues		>60%
101-68-8	4,4'-methylenediphenyl diisocyanate		10-20%
· Sectio	ns 311/312 (Specific hazard chemica	al listings):	
All ingredients are listed.			
· Sectio	ns 311/312 Hazard Categorizations:		
9016-87-9	diphenylmethanediisocyanate, isomers and homologues	A = Acute; C = Chronic (health hazards)	>60%
101-68-8	4,4'-methylenediphenyl diisocyanate	A = Acute; C = Chronic (health hazards)	10-20%
TSCA (Toxic Substances Control Act):			
All ingredients are listed.			
· Proposition 65			
· Chemi	cals known to cause cancer:		
None of the	e ingredients is listed.		
•			

(Contd. on page 9)

<sup>—</sup>USA —

acc. to ISO/DIS 11014

Printing date 02/07/2012

Version 4

Reviewed on 02/07/2012

#### Trade name: Metrethane 4717 Base

	(Con	td. f	rom page 8
· Chemi	cals known to cause reproductive toxicity for females:		
None of the	e ingredients is listed.		
· Chemi	cals known to cause reproductive toxicity for males:		
None of the	e ingredients is listed.		
· Chemi	cals known to cause developmental toxicity:		
None of the	e ingredients is listed.		
· Carcino	genic categories		
· EPA (	Environmental Protection Agency)		
9016-87-9	diphenylmethanediisocyanate,		CBD
	isomers and homologues		
101-68-8	4,4'-methylenediphenyl diisocyanate		CBD
· IARC (	International Agency for Research on Cancer)		
9016-87-9	diphenylmethanediisocyanate,	3	>60%
	isomers and homologues		
101-68-8	4,4'-methylenediphenyl diisocyanate	3	10-20%
· NTP (I	lational Toxicology Program)		
None of the	e ingredients is listed.		
· TLV (1	hreshold Limit Value established by ACGIH)		
None of the	e ingredients is listed.		
· MAK (	German Maximum Workplace Concentration)		
9016-87-9	diphenylmethanediisocyanate,	4	>60%
	isomers and homologues		
101-68-8	4,4'-methylenediphenyl diisocyanate	4	10-20%
	-Ca (National Institute for Occupational Safety and Health)		
None of the	e ingredients is listed.		
· OSHA	Ca (Occupational Safety & Health Administration)		
None of the	e 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.

<ul> <li>Relevant phrases</li> </ul>	R20 Harmful by inhalation.	
	R36/37/38 Irritating to eyes, respiratory syste R40 Limited evidence of a carcinogeni	
	R42/43May cause sensitisation by inhalaR48/20Harmful: danger of serious damage	tion and skin contact. ge to health by
	prolonged exposure through inhal	ation.
<ul> <li>Department issuing MSDS:</li> </ul>	Technical department	(Contri on page 10)

(Contd. on page 10)

acc. to ISO/DIS 11014

Printing date 02/07/2012

#### Version 4

Reviewed on 02/07/2012

#### Trade name: Metrethane 4717 Base

· Contact:

Dr. John F. Plummer

 \* Data compared to the previous version altered. (Contd. from page 9)

\_\_\_\_\_USA —



acc. to ISO/DIS 11014

Reviewed on 02/07/2012

#### Printing date 02/07/2012 Version 6 1 Identification of the substance/mixture and of the company/undertaking · Product identifier Motrothana 4717 Activator

<ul> <li>Trade name:</li> <li>Application of the substance / the preparation</li> </ul>	Metrethane 4717 Activator Hardening agent / Curing agent	
<ul> <li>Details of the supplier of the s</li> <li>Manufacturer/Supplier:</li> </ul>	safety data sheet Mereco Division Metachem Resins Corporation 1505 Main Street West Warwick, RI 02893 USA	Phone +1 / 401 / 822-9300
Information department:     Emergency telephone	Technical department. email = <u>info@mereco.com</u>	
number:	Telephone: (401) 822-9300	

### 2 Composition/information on ingredients

· Chemical characterization: Substances · CAS No. Description Polyol mixture

#### 3 Hazards identification

\*

· Classification of the substance or mixture			
<ul> <li>Classification according to Directive 67/548/EEC or Directive 1999/45/EC</li> </ul>	This material is non-hazardous		
Not Applicable <ul> <li>Information concerning         particular hazards for         human and environment:</li> </ul>	Not applicable		
numan and environment.	Not applicable.		
· Label elements			
<ul> <li>Labelling according to EU guidelines:</li> </ul>	Observe the general safety regulations when handling chemicals. The substance is not subject to classification according to the sources of literature known to us.		
<ul> <li>Classification system:</li> <li>NFPA ratings (scale 0 - 4)</li> </ul>	Health = 2 Fire = 1 Reactivity = 0 (Contd. on page 2)		
	USA —		

Printing date 02/07/2012	acc. to ISO/DIS 11014 Version 6	Reviewed on 02/07/2012
<i>Trade name:</i> Metrethane 4717	Activator	
		(Contd. from page 1
· HMIS-ratings (scale 0 - 4)	Health = 2 Fire = 1 Reactivity = 0	
4 First aid measures		
<ul> <li>General information:</li> <li>After inhalation:</li> </ul>	No special measures required. Supply fresh air; consult doctor	
<ul> <li>After skin contact:</li> <li>After eye contact:</li> <li>After swallowing:</li> </ul>	Generally the product does not Rinse opened eye for several n If symptoms persist consult doe	irritate the skin. ninutes under running water.
5 Firefighting measures		
<ul> <li>Suitable extinguishing agents:</li> </ul>	CO2, extinguishing powder or water spray or alcohol resistant	water spray. Fight larger fires with t foam.
<ul> <li>Special hazards arising from the substance or mixture</li> <li>Protective equipment:</li> </ul>	No further relevant information No special measures required.	
6 Accidental release meas		
Personal precautions, protective equipment and	ui <del>c</del> 3	
emergency procedures <ul> <li>Environmental precautions:</li> <li>Methods and material for</li> </ul>	Not required. No special measures required.	
containment and cleaning up	universal binders, sawdust).	erial (sand, diatomite, acid binders,
<ul> <li>Reference to other sections</li> </ul>	No dangerous substances are See Section 7 for information o	n safe handling. n personal protection equipment.

## 7 Handling and storage

<ul> <li>Handling:</li> <li>Precautions for safe handling</li> </ul>	No special measures required. Store in cool, dry place in tightly closed receptacles. Use only in well ventilated areas.	
<ul> <li>Information about protection against</li> </ul>		
explosions and fires:	No special measures required.	(Contd. on page 3)

acc. to ISO/DIS 11014

Printing date 02/07/2012

Version 6

Reviewed on 02/07/2012

### *Trade name:* Metrethane 4717 Activator

· Storage:		(Contd. from page 2)
<ul> <li>Requirements to be met by storerooms and receptacles:</li> </ul>	No special requirements.	
<ul> <li>Information about storage in one common storage facility:</li> </ul>	Not required.	
<ul> <li>Further information about storage conditions:</li> <li>Specific end use(s)</li> </ul>	None. No further relevant information available.	

### 8 Exposure controls/personal protection

<ul> <li>Additional information about design of technical systems:</li> <li>Components with limit values that require monitoring at the</li> </ul>	
workplace:	Not required.
· Additional information:	The lists that were valid during the creation were used as basis.
· Personal protective equipment	t:
<ul> <li>General protective and</li> </ul>	
hygienic measures:	The usual precautionary measures for handling chemicals should be followed.
<ul> <li>Breathing equipment:</li> </ul>	Not required.
<ul> <li>Protection of hands:</li> </ul>	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 the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
<ul> <li>Penetration time of glove</li> </ul>	
material	The exact penetration time has to be determined by the glove manufacturer and has to be observed.
• Eye protection:	Goggles recommended during refilling.

### 9 Physical and chemical properties

\*

General Information     Appearance:     Form:	Liquid	
		(Contd. on page 4)

2)

acc. to ISO/DIS 11014

#### Printing date 02/07/2012

Version 6

Reviewed on 02/07/2012

### *Trade name:* Metrethane 4717 Activator

	(Contd. from page 3	
· Color:	Light yellow	
· Odor:	Mild	
· Odour threshold:	Not determined.	
· pH-value:	Not determined.	
· Change in condition		
<ul> <li>Melting point/Melting range:</li> </ul>	Undetermined.	
<ul> <li>Boiling point/Boiling range:</li> </ul>	Undetermined.	
· Flash point:	205°C	
· Flammability (solid, gaseous):	Not applicable.	
· Ignition temperature:		
· Decomposition temperature:	Not determined.	
· Auto igniting:	Not determined.	
· Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:		
· Lower:	Not determined.	
· Upper:	Not determined.	
· Vapor pressure:	Not determined.	
· Density at 20°C:	0.96 g/cm <sup>3</sup>	
Relative density	Not determined.	
<ul> <li>Vapour density</li> </ul>	Not determined.	
<ul> <li>Evaporation rate</li> </ul>	Not determined.	
<ul> <li>Solubility in / Miscibility with</li> </ul>		
· Water:	Not miscible or difficult to mix.	
· Segregation coefficient (n-octonol/w	vater): Not determined.	
· Viscosity:		
· Dynamic:	Not determined.	
· Kinematic:	Not determined.	
<ul> <li>Organic solvents:</li> </ul>	0.0 %	
Other information	No further relevant information available.	

### 10 Stability and reactivity

<ul> <li>Thermal decomposition / conditions to be avoided:</li> <li>Possibility of hazardous</li> </ul>	No decomposition if used according to specifications.
reactions	No dangerous reactions known.
<ul> <li>Conditions to avoid</li> </ul>	No further relevant information available.
	(Contd. on page 5)
	USA —

Printing date 02/07/2012	Version 6	Reviewed on 02/07/2012
Trade name: Metrethane 4717	7 Activator	
· Incompatible materials:	No further relevant information a	(Contd. from page 4 vailable.
Hazardous decomposition     products:	No dangerous decomposition pro	oducts known.
11 Toxicological information	on	
<ul> <li>Acute toxicity: <ul> <li>Primary irritant effect:</li> <li>on the skin:</li> <li>on the eye:</li> <li>Sensitization:</li> </ul> </li> <li>Additional toxicological information:</li> </ul>	No irritant effect. No irritating effect. No sensitizing effects known. When used and handled accordi does not have any harmful effect the information provided to us. The substance is not subject to c	ts according to our experience and
12 Ecological information		
· Aquatic toxicity:	No further relevant information a	
Persistence and degradability     Behavior in environmental s	ty No further relevant information a vstems:	vailable.
· Bioaccumulative potential	No further relevant information a	vailable.
<ul> <li>Additional ecological inform</li> <li>General notes:</li> </ul>	ation: Generally not hazardous for wate	er

#### 13 Disposal considerations

<ul> <li>Waste treatment methods</li> <li>Recommendation:</li> </ul>	Smaller quantities can be disposed of with household waste.
<ul> <li>Uncleaned packagings:</li> <li>Recommendation:</li> </ul>	Disposal must be made according to official regulations.

## \* 14 Transport information

\_

· UN-Number · DOT, ADR, ADN, IMDG, IATA	Not Applicable	
· UN proper shipping name		
· DOT	Not Regulated	
· ADR, ADN, IMDG, IATA	Not Applicable	
		(Contd. on page 6)

(Contd. on page 6) USA —

acc. to ISO/DIS 11014

#### Printing date 02/07/2012

Version 6

Reviewed on 02/07/2012

#### Trade name: Metrethane 4717 Activator

		(Contd. from page 5)
<ul> <li>Transport hazard class(es)</li> </ul>		
· DOT, ADR, ADN, IMDG, IATA · Class	Not Applicable	
<ul> <li>Packing group</li> <li>DOT, ADR, IMDG, IATA</li> </ul>	Not Applicable	
<ul> <li>Environmental hazards:</li> <li>Marine pollutant:</li> </ul>	No	
· Special precautions for user	Not applicable.	
<ul> <li>Transport in bulk according to Annex MARPOL73/78 and the IBC Code</li> </ul>	<b>( II of</b> Not applicable.	

#### 15 Regulatory information

#### · Sara

<ul> <li>Section 302 (extremely hazardous substances):</li> </ul>
Substance is not listed.
Section 313 (Specific toxic chemical listings):
Substance is not listed.
Sections 311/312 (Specific hazard chemical listings):
Substance is not listed.
Sections 311/312 Hazard Categorizations:
Substance is not listed.
· TSCA (Toxic Substances Control Act):
Substance is listed.
· Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

(Contd. on page 7)

— USA –

acc. to ISO/DIS 11014

Printing date 02/07/2012

Version 6

Reviewed on 02/07/2012

#### Trade name: Metrethane 4717 Activator

(Contd. from page 6)

- USA —

#### · Carcinogenic categories

· EPA (Environmental Protection Agency)

#### Substance is not listed.

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· MAK (German Maximum Workplace Concentration)

Substance is not listed.

• NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not 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.

- Department issuing MSDS: T
- · Contact:

Technical department Dr. John F. Plummer

- \* Data compared to the
- previous version altered.