



# SAFETY DATA SHEET

Version: 16-July-2019 Revision date: 16-July-2019  
ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

## S1184 Adhesive - Part B

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1 Product identifier</b>		
Product Name	S1184 Adhesive – Part B	
Product type	Mixture	
REACH Registration No.	Not applicable (Mixture)	
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>		
Identified Use(s)	Adhesive. Epoxy Resin. Hardener	
Uses Advised Against	None known.	
<b>1.3 Details of the supplier of the safety data sheet</b>		
Supplier	Tyco Electronics UK Ltd Faraday Road, Dorcan, Swindon, Wiltshire, SN3 5HH, United Kingdom	
Telephone	+44 (0) 1793 52 81 71 (Head Office) Monday - Friday 08:00 - 17:00 (GMT)	
Fax	+44 1793 57 2516	
E-Mail (competent person)	msdsmaterialsuk@te.com	
<b>1.4 Emergency telephone number</b>		
Emergency Phone No.	+44 1793 528171	GMT (Monday to Friday 08:00 - 17:00)
Languages spoken	English	

### SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>2.1.1 Regulation (EC) No. 1272/2008 (CLP)</b>	Acute Tox. 4; H302 Skin Corr. 1; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
<b>2.2 Label elements</b>	According to Regulation (EC) No. 1272/2008 (CLP)
Product Name	S1184 Adhesive – Part B
Contains:	3,6,9,12-tetraazatetradecamethylenediamine; Triethylenetetramine; Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine; Fatty acids, soya, reaction products with polyethylenepolyamines
Hazard Pictogram(s)	
Signal Word(s)	DANGER
Hazard Statement(s)	H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H410: Very toxic to aquatic life with long lasting effects.
Precautionary Statement(s)	P264: Wash hands and exposed skin thoroughly after handling. P260: Do not breathe mist/vapours/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353: IF ON SKIN or hair: Take off immediately all contaminated clothing. Rinse skin with water. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.



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Supplemental information

Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310: Immediately call a POISON CENTER/doctor.  
 Not applicable.

### 2.3 Other hazards

None known.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable

### 3.2 Mixtures Substances in preparations / mixtures.

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard classification
Silver	<70	7440-22-4	231-131-3	01-2119555669-21-XXX	Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Fatty acids, soya, reaction products with polyethylenepolyamines	<25	91051-56-8	293-110-5	Not yet assigned in the supply chain	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	<10	68082-29-1	500-191-5	Not yet assigned in the supply chain	Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Chronic 2; H411
3,6,9,12-tetraazatetradecamethylenediamine	<10	4067-16-7	223-775-9	2119485826-22-XXXX	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1A; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Triethylenetetramine	<5	112-24-3	203-950-6	Not yet assigned in the supply chain	Acute Tox. 4; H312 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412
Xylene*	<2	1330-20-7	215-535-7	Not yet assigned in the supply chain	Flam. Liq. 3; H226 Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Asp. Tox. 1; H304 STOT SE 3; H335 STOT RE 2; H373 Aquatic Chronic 3; H412
Ethylbenzene*	<1	100-41-4	202-849-4	Not yet assigned in the supply chain	Flam. Liq. 2; H225 Acute Tox. 4; H332 Asp. Tox. 1; H304 STOT RE 2; H373 Aquatic Chronic 3; H412
Toluene*	<0.1	108-88-3	203-625-9	Not yet assigned in the supply chain	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Asp. Tox. 1; H304 STOT SE. 3; H336 STOT RE. 2; H373 Repr. 2; H361d Aquatic Chronic 3; H412

Notes: For full text of H phrases see section 16. \*Substance with a community exposure limit



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### SECTION 4: FIRST AID MEASURES



#### 4.1 Description of first aid measures

Self-protection of the first aider

No action should be taken involving personal risk. Wear appropriate personal protective equipment, avoid direct contact. Remove contaminated clothing immediately. If unconscious, place in recovery position and get medical attention immediately. Apply artificial respiration if necessary. Check the vital functions. Keep cool.

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention.

Skin Contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Obtain immediate medical attention.

Eye Contact

IF IN EYES: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Treatment by an ophthalmologist due to possible caustic burn of the eyes may be required.

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Obtain immediate medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No antidotes known.

Notes to a physician:

IF IN EYES: Treatment by an ophthalmologist due to possible caustic burn of the eyes may be required.

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable Extinguishing media

Combustible Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions. Water spray, foam, dry powder or CO<sub>2</sub>.

Unsuitable extinguishing media

Do not use water jet. Direct water jet may spread the fire.

#### 5.2 Special hazards arising from the substance or mixture

May give off noxious and toxic fumes in a fire. Combustion products: Carbon monoxide, Carbon dioxide, Nitrogen oxides

#### 5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Chemical protection suit. Keep containers cool by spraying with water if exposed to fire. Evacuate if necessary. Do not allow run-off from fire fighting to enter drains or water courses.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

No action should be taken involving personal risk. Wear appropriate personal protective equipment, avoid direct contact. Remove contaminated clothing and wash all affected areas with plenty of water.

#### 6.2 Environmental precautions

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into soil must be alerted to the appropriate regulatory body.

#### 6.3 Methods and material for containment and cleaning up

Contain spillages. Cover spills with inert absorbent material. Recover the product where possible. Ventilate the area and wash spill site after material pick-up is complete.

#### 6.4 Reference to other sections

See Also Section 8, 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

When using do not eat or drink. Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control



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### 7.2 Conditions for safe storage, including any incompatibilities

Storage temperature

Storage life

Incompatible materials

### 7.3 Specific end use(s)

personal exposures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not eat, drink or smoke when using this product. Avoid all contact. Remove contaminated clothing and wash clothing before reuse.

Keep only in original packaging. Keep in a well ventilated place. Keep container closed.

Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources.

Stable at ambient temperatures.

Keep away from oxidising substances. Avoid contact with acids and alkalis.

See Section: 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Silver	7440-22-4	-	0.1	-	-	WEL
Xylene, o-,m-,p- or mixed isomers	1330-20-7	50	220	100	441	WEL, Sk, BMGV
		50	221	100	442	IOELV, Sk
Ethylbenzene	100-41-4	100	441	125	552	WEL, Sk
		100	442	200	884	IOELV, Sk
Toluene	108-88-3	50	191	100	384	WEL, Sk
		50	192	100	384	IOELV, Sk

Source: WEL: Workplace Exposure Limit (UK HSE EH40). IOELV: Indicative Occupational Exposure Limit Value. Bmgv: Biological monitoring guidance value (UK HSE EH40)

Note: Sk - Can be absorbed through skin.

#### 8.1.2 Biological limit value

SUBSTANCE	CAS No.	Biological limit value	Biological Guidance Value	Note
Xylene, o-,m-,p- or mixed isomers	1330-20-7	650 mmol methyl hippuric acid/ mol Creatinine	Post shift	Sk, BMGV

Source: Bmgv: Biological monitoring guidance value (UK HSE EH40)

Note: Sk - Can be absorbed through skin.

#### 8.1.3 PNECs and DNELs

Not applicable.

Silver - Not yet assigned in the supply chain

Fatty acids, soya, reaction products with polyethylenepolyamines - Not yet assigned in the supply chain

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine - Not yet assigned in the supply chain

3,6,9,12-tetraazatetradecamethylenediamine - Not yet assigned in the supply chain

Triethylenetetramine - Not yet assigned in the supply chain

Xylene - Not yet assigned in the supply chain

Ethylbenzene - Not yet assigned in the supply chain

Toluene - Not yet assigned in the supply chain

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. Take action to prevent static discharges. Keep away from fire, sparks and heated surfaces.



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### 8.2.2 Personal protection equipment

Use personal protective equipment as required. Take care for general good hygiene and housekeeping. Avoid all contact. Avoid inhalation of vapours that may be evolved at elevated temperatures.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection



Wear eye protection with side protection (EN166). Eyewash bottles should be available.

Skin protection (Hand protection/ Other)



#### Hand protection

Wear impervious gloves (EN374).

**Body protection** Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection



In case of inadequate ventilation wear respiratory protection. Recommended: A self contained breathing apparatus may be appropriate.

Thermal hazards

Not applicable

### 8.2.3 Environmental Exposure Controls

Avoid release to the environment. Spillages or uncontrolled discharges into soil must be alerted to the appropriate regulatory body.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Silver / Grey, Viscous
Odour	Ammonia odour.
Odour threshold	Not available
pH	Not determined
Melting point/freezing point	Not determined
Initial boiling point and boiling range	> 150 °C
Flash point	122 °C [Closed cup]
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not determined
Vapour density	> 2
Relative density	2.0
Solubility(ies)	Water: Insoluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature	315 °C
Decomposition Temperature	Not determined
Viscosity	Not determined
Explosive properties	Not explosive
Oxidising properties	Not oxidising

### 9.2 Other information

None known

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under normal conditions.

### 10.2 Chemical stability

Stable under normal conditions.



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<b>10.3</b>	<b>Possibility of hazardous reactions</b>	Hazardous polymerisation will not occur. Can polymerise exothermically if in contact with acids.
<b>10.4</b>	<b>Conditions to avoid</b>	Avoid prolonged storage at elevated temperature.
<b>10.5</b>	<b>Incompatible materials</b>	Keep away from oxidising substances. Avoid contact with acids and alkalis.
<b>10.6</b>	<b>Hazardous decomposition product(s)</b>	Combustion products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

##### Acute toxicity - Oral

Fatty acids, soya, reaction products with polyethylenepolyamines  
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine

Triethylenetetramine

Xylene

##### Acute toxicity - Dermal

Fatty acids, soya, reaction products with polyethylenepolyamines  
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine

Triethylenetetramine

Xylene

##### Acute toxicity - Inhalation

Fatty acids, soya, reaction products with polyethylenepolyamines  
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine

Triethylenetetramine

Xylene

##### Skin corrosion/irritation

Fatty acids, soya, reaction products with polyethylenepolyamines  
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine

Triethylenetetramine

Xylene

##### Serious eye damage/irritation

Fatty acids, soya, reaction products with polyethylenepolyamines  
Fatty acids, C18-unsatd., dimers, oligomeric reaction

Mixture: Acute Tox. 4; H302: Harmful if swallowed.  
Calculated acute toxicity estimate (ATE) < 2,000 mg/kg.  
Acute Tox. 4; Harmful if swallowed.  
No data  
Not classified  
LD50 (oral,rat) mg/kg: >2000 (OECD 423)  
Acute Tox. 4; Harmful if swallowed.  
LD50 (oral,rat) mg/kg: 1716 (OECD 401)  
Acute Tox. 4; H302: Harmful if swallowed. Harmonised Classification  
No data  
Not classified - LD50 > 2 000 mg/kg bw/day (rat) EU Method B.1  
Mixture: Based upon the available data, the classification criteria are not met.  
Calculated acute toxicity estimate (ATE) >2,000 mg/kg.  
Not classified  
No data  
Not classified  
LD50 > 2000 mg/kg bw/day (rat) OECD 402  
Acute Tox. 4; Harmful in contact with skin.  
LD50 (skin,rabbit) mg/kg: 1465 (OECD 402)  
Acute Tox. 4; H312: Harmful in contact with skin. Harmonised Classification  
No data  
Acute Tox. 4; Harmful in contact with skin. Harmonised Classification  
Mixture: Based upon the available data, the classification criteria are not met.  
Calculated acute toxicity estimate (ATE) > 5 mg/l  
Not classified  
No data  
Not classified  
No data  
Not classified  
No data  
Acute Tox. 4; Harmful if inhaled. Harmonised Classification  
Mixture: Skin Corr. 1; H314: Causes severe skin burns and eye damage.  
Skin Irrit. 2; Causes skin irritation.  
No data  
Skin Irrit. 2; Causes skin irritation.  
Irritating to skin. (in vitro) (OECD 439)  
Skin Corr. 1A; Causes severe skin burns and eye damage. Harmonised Classification  
Corrosive to skin. (rabbit) (OECD 404)  
Skin Corr. 1; H314 Harmonised Classification  
No data  
Skin Irrit. 2; Causes skin irritation. Harmonised Classification  
ECHA Registration Endpoint summary: Irritating to eyes, respiratory system and skin.  
Mixture: Eye Dam. 1; H318: Causes serious eye damage.  
Eye Dam. 1; Causes serious eye damage.  
No data  
Eye Dam. 1; Causes serious eye damage.



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products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine	Severely irritating to eyes. (rabbit) (OECD 405) Eye Dam. 1; Causes serious eye damage. Corrosive to eyes. (rabbit) (OECD 405) Skin Corr. 1; H314 Harmonised Classification
Triethylenetetramine	No data
Xylene	Eye Irrit. 2; Causes eye irritation. ECHA Registration Endpoint summary: Irritating to eyes, respiratory system and skin.
<b>Respiratory or skin sensitization</b>	Mixture: Skin Sens. 1; H317: May cause an allergic skin reaction.
Fatty acids, soya, reaction products with polyethylenepolyamines	Skin Sens. 1; May cause an allergic skin reaction.
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine	No data Skin Sens. 1; May cause an allergic skin reaction. Sensitisation (mouse): Positive (OECD 429) Skin Sens. 1; May cause an allergic skin reaction. Harmonised Classification Sensitisation (guinea pig) - Positive (OECD 406) Skin Sens. 1; H317 Harmonised Classification
Triethylenetetramine	No data
Xylene	Not classified - ECHA Registration Endpoint summary: Negative
<b>Germ cell mutagenicity</b>	Mixture: Based upon the available data, the classification criteria are not met.
Fatty acids, soya, reaction products with polyethylenepolyamines	Not classified
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	No data
3,6,9,12-tetraazatetradecamethylenediamine	Not classified In vitro: Negative (OECD 487) In vivo: No data
Triethylenetetramine	Not classified In vitro: Negative (OECD 482) In vivo: Negative (mouse) (OECD 474)
Xylene	Not classified In vitro: No data In vivo: No data
<b>Carcinogenicity</b>	Not classified - In vitro: Negative (Chinese hamster Ovary) EU Method B.10 In vivo: Negative (mouse) OECD 478
Fatty acids, soya, reaction products with polyethylenepolyamines	Mixture: Based upon the available data, the classification criteria are not met.
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine	Not classified No data Not classified No data Not classified No evidence of carcinogenic effects. (mouse) (OECD 451)
Triethylenetetramine	Not classified
Xylene	No data No specific effects and/or symptoms have been reported or known. Not classified - Negative (rat) EU Method B.32
<b>Reproductive toxicity</b>	Mixture: Based upon the available data, the classification criteria are not met.
Fatty acids, soya, reaction products with polyethylenepolyamines	Not classified
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	No data Not classified
3,6,9,12-tetraazatetradecamethylenediamine	Reproductive toxicity: NOAEL (rat) mg/kg bw/day 1000. No effects observed (OECD 422) Developmental Toxicity: No data
Triethylenetetramine	Not classified Reproductive toxicity: No data Developmental Toxicity: No data
Xylene	Not classified Reproductive toxicity: No effects observed (rat) (OECD 422) Developmental Toxicity: No data
<b>STOT - single exposure</b>	Not classified - ECHA Registration Endpoint summary: Not classified for reproductive or developmental toxicity. Mixture: Based upon the available data, the classification criteria are not met.





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Fatty acids, soya, reaction products with polyethylenepolyamines	Not classified No data
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Not classified No data
3,6,9,12-tetraazatetradecamethylenediamine	Not classified No data
Triethylenetetramine	Not classified No data
Xylene	STOT SE 3; May cause respiratory irritation. ECHA Registration Endpoint summary: Irritating to eyes, respiratory system and skin.
<b>STOT - repeated exposure</b>	Mixture: Based upon the available data, the classification criteria are not met.
Fatty acids, soya, reaction products with polyethylenepolyamines	Not classified No data
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Not classified Oral: NOAEL (rat) mg/kg bw/day 1000 (OECD 422) Inhalation: No data Dermal: No data
3,6,9,12-tetraazatetradecamethylenediamine	Not classified Oral: NOAEL (rat) mg/kg bw/day 50 (OECD 422) Inhalation: No data Dermal: No data
Triethylenetetramine	Not classified Oral: No data Inhalation: No data Dermal: No data
Xylene	STOT RE 2; May cause damage to organs through prolonged or repeated exposure. Oral: Adverse effects observed – NOAEL (rat) 250 mg/kg bw/day Inhalation: Adverse effects observed – NOAEC (rat) 3515 mg/m <sup>3</sup> Dermal: Not classified - No data
<b>Aspiration hazard</b>	Mixture: Based upon the available data, the classification criteria are not met.
Fatty acids, soya, reaction products with polyethylenepolyamines	Not classified - Not applicable
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Not classified - Not applicable
3,6,9,12-tetraazatetradecamethylenediamine	Not classified - Not applicable
Triethylenetetramine	Not classified - Not applicable
Xylene	Asp. Tox. 1; May be fatal if swallowed and enters airways. Hydrocarbon

### 11.2 Other information

None.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Silver	Mixture: Aquatic Acute 1; H400: Very toxic to aquatic life. Aquatic Chronic 1; H410: Very toxic to aquatic life with long lasting effects. Aquatic Acute 1; H400: Very toxic to aquatic life. Short term: LC50 (fish) mg/l 0.12 (Bielmyer GK et al, 2007) Aquatic Chronic 1; H410: Very toxic to aquatic life with long lasting effects. Long Term: NOEC (Fish) mg/l 0.13 (Ward TJ et al, 2006)
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids	Aquatic Chronic 2; H411 Acute Toxicity: LC50 (fish) mg/l 7.07 (96 hour) (OECD 203) Chronic Toxicity: No data
3,6,9,12-tetraazatetradecamethylenediamine	Aquatic Acute 1; H400: Very toxic to aquatic life. Short term: LC50 (fish) mg/l 0.18 (EU Method C.1) Aquatic Chronic 1; H410: Very toxic to aquatic life with long lasting effects. Long Term: No data
Triethylenetetramine	Aquatic Chronic 3; H412 Harmonised Classification Acute Toxicity: No data





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	Xylene	Chronic Toxicity: No data Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects. EU Harmonised Classification Short term: Not classified - LC50 (fish) mg/l 2.6 OECD 203 Long Term: NOEC (Fish) mg/l >1.3 (Walsh et al, 1977) The product is likely to persist in the environment. Not applicable for inorganic substances No data
<b>12.2</b>	<b>Persistence and degradability</b>	
	Silver	
	Fatty acids, soya, reaction products with polyethylenepolyamines	
	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine	Inherently biodegradable, not fulfilling criteria. ECHA registration dossier
	Triethylenetetramine	Not readily biodegradable (according to OECD criteria). ECHA registration dossier
	Xylene	No data.
	Ethylbenzene	Readily biodegradable. (10 Days) OECD 301 F
	Toluene	Readily biodegradable. ECHA registration dossier
<b>12.3</b>	<b>Bioaccumulative potential</b>	Water: Readily biodegradable. ECHA registration dossier
	Silver	The product has low potential for bioaccumulation. BCF = 70 - The substance has low potential for bioaccumulation. ECHA registration dossier
	Fatty acids, soya, reaction products with polyethylenepolyamines	No data
	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine	Bioconcentration factor (BCF) : 77.4 The substance has high potential for bioaccumulation. ECHA registration dossier
	Triethylenetetramine	No data.
	Xylene	No data.
	Ethylbenzene	The substance has low potential for bioaccumulation. ECHA registration dossier
	Toluene	The substance has low potential for bioaccumulation. ECHA registration dossier BCF = 90 - The substance has low potential for bioaccumulation. ECHA registration dossier
<b>12.4</b>	<b>Mobility in soil</b>	The product is predicted to have low mobility in soil.
	Silver	The substance is predicted to have low mobility in soil. ECHA registration dossier
	Fatty acids, soya, reaction products with polyethylenepolyamines	No data
	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine	No data.
	Triethylenetetramine	The substance is predicted to have moderate mobility in soil. ECHA registration dossier
	Xylene	No data.
	Ethylbenzene	The substance is predicted to have moderate mobility in soil. ECHA registration dossier
	Toluene	The substance is predicted to have moderate mobility in soil. ECHA registration dossier
<b>12.5</b>	<b>Results of PBT and vPvB assessment</b>	The product is predicted to have high mobility in soil. ECHA registration dossier
	Silver	No data for the mixture as a whole. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance.
	Fatty acids, soya, reaction products with polyethylenepolyamines	Not classified as PBT or vPvB. ECHA registration dossier
	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 3,6,9,12-tetraazatetradecamethylenediamine	Not classified as PBT or vPvB. ECHA registration dossier
	Triethylenetetramine	Not classified as PBT or vPvB. ECHA registration dossier
	Xylene	Not classified as PBT or vPvB. ECHA registration dossier
	Ethylbenzene	Not classified as PBT or vPvB. ECHA registration dossier
	Toluene	Not classified as PBT or vPvB. ECHA registration dossier
<b>12.6</b>	<b>Other adverse effects</b>	Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). None of the known components is included in the list of fluorinated



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Toluene

greenhouse gases (Regulation (EC) No 517/2014).

This chemical is known to leach through soil into ground water under certain conditions.

### SECTION 13: DISPOSAL CONSIDERATIONS

<b>13.1 Waste treatment methods</b>	Dispose of wastes in an approved waste disposal facility. Recover or recycle if possible.
Waste code(s) / waste designation(s)	08 04 09
	Packaging waste: 15 01 10
<b>13.2 Additional Information</b>	Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

### SECTION 14: TRANSPORT INFORMATION

	Road/Rail (ADR/RID)	Sea transport (IMDG)	Air (ICAO/IATA)
<b>14.1 UN number</b>	UN1760	UN1760	UN1760
<b>14.2 UN proper shipping name</b>	CORROSIVE LIQUID, N.O.S. (3,6,9,12-tetraazatetradecamethylenedia mine; Triethylenetetramine)	CORROSIVE LIQUID, N.O.S. (3,6,9,12-tetraazatetradecamethylenedia mine; Triethylenetetramine)	CORROSIVE LIQUID, N.O.S. (3,6,9,12-tetraazatetradecamethylenedia mine; Triethylenetetramine)
<b>14.3 Transport hazard class(es)</b>	8	8	8
Classification code:	80	Not applicable	Not applicable
Hazard Identification Number	C10	Not applicable	Not applicable
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>	Environmentally hazardous substance	Classified as a Marine Pollutant.	Environmentally hazardous substance
<b>14.6 Special precautions for user</b>			
Special Provisions	274	274	A3
Limited Quantities	5L	5L	5kg (Y844)
Excepted Quantities	E1	E1	-
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable		
<b>14.8 Additional Information</b>	None known		

### SECTION 15: REGULATORY INFORMATION

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
<b>15.1.1 EU regulations</b>	
Authorisations and/or Restrictions On Use	Toluene: Entry 48: Restricted as a substance or in mixtures > 0.1% w/w used in adhesives or spray paints for the general public
Volatile Organic Compound Content (%):	2.61%
<b>15.1.2 National regulations</b>	
Wassergefährdungsklasse (Germany)	Water hazard class: 3 (Self classification)
<b>15.2 Chemical Safety Assessment</b>	Silver - A REACH chemical safety assessment is not yet available for this substance. Fatty acids, soya, reaction products with polyethylenepolyamines - A chemical safety assessment is not required under REACH. Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine - A chemical safety assessment is not required under REACH. 3,6,9,12-tetraazatetradecamethylenediamine - A REACH chemical safety assessment is not yet available for this substance. Triethylenetetramine - A chemical safety assessment is not required under REACH. Xylene - A chemical safety assessment is not required under REACH.



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Ethylbenzene - A chemical safety assessment is not required under REACH.  
Toluene - A chemical safety assessment is not required under REACH.

### SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

SECTION 11: Acute toxicity - Oral, Skin corrosion/irritation, Serious eye damage/irritation.

Version: 16-July-2019

Date of preparation: 16-July-2019

Date Previous Issue: 22-August-2018

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

#### References:

Existing Safety Data Sheet (SDS). Existing ECHA registration(s) for Silver (CAS No. 7440-22-4); Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine (CAS No. 68082-29-1); 3,6,9,12-tetraazatetradecamethylenediamine (CAS No. 4067-16-7); Xylene (CAS No. 1330-20-7); Ethylbenzene (CAS No. 100-41-4); Toluene (CAS No. 108-88-3). EU Harmonised Classification(s) for Silver (CAS No. 7440-22-4); Triethylenetetramine (CAS No. 112-24-3); Xylene (CAS No. 1330-20-7); Ethylbenzene (CAS No. 100-41-4); Toluene (CAS No. 108-88-3)

#### Literature References:

- Walsh, Armstrong, Bartley, Salman and Frank, 1977, Residues of emulsified xylene in aquatic weed control and their impact on rainbow trout, Appl. Sci. Branch, Eng. Res. Cent. Denver, CO: 15p.

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Acute Tox. 4; H302	Acute Toxicity Estimate Mixture Calculation
Skin Corr. 1; H314	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
Eye Dam. 1; H318	Threshold Calculation
Aquatic Acute 1; H400	Summation Calculation
Aquatic Chronic 1; H410	Summation Calculation

#### LEGEND

ADR/RID	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road / RID: Regulations concerning the international railway transport of dangerous goods
BCF	Bioconcentration factor (BCF)
CAS	CAS: Chemical Abstracts Service
DNEL	Derived No Effect Level
EC	EC: European Community
EU	European Union
IATA	IATA: International Air Transport Association
ICAO/IATA	ICAO: International Civil Aviation Organization / IATA: International Air Transport Association
IMDG	IMDG: International Maritime Dangerous Goods
LTEL	Long Term Exposure Limit
NOEC	No Observed Effect Concentration
NOAEL	no observed adverse effect level
OECD	Organisation for Economic Cooperation and Development
PBT	PBT: Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
STEL	Short Term Exposure Limit
UN	United Nations
vPvB	vPvT: very Persistent and very Toxic

#### Hazard classification / Classification code:

Flam. Liq. 2; Flammable Liquid, Category 2  
Flam. Liq. 3; Flammable Liquid, Category 3  
Acute Tox. 4; Acute toxicity, Category 4  
Asp. Tox. 1; Aspiration hazard, Category 1  
Acute Tox. 4; Acute toxicity, Category 4

#### Hazard Statement(s)

H225: Highly flammable liquid and vapour.  
H226: Flammable liquid and vapour.  
H302: Harmful if swallowed.  
H304: May be fatal if swallowed and enters airways.  
H312: Harmful in contact with skin.



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Skin Corr. 1A ; Skin corrosion/irritation, Category 1A  
Skin Corr. 1B; Skin corrosion/irritation, Category 1B  
Skin Irrit. 2; Skin corrosion/irritation, Category 2  
Skin Sens. 1A; Skin Sensitisation, Category 1A  
Skin Sens. 1; Skin Sensitisation, Category 1  
Eye Dam. 1; Eye damage, category 1  
Eye Irrit. 2; Eye Irritation, Category 2  
Acute Tox. 4; Acute toxicity, Category 4  
STOT SE 3; Specific target organ toxicity — single exposure, Category 3

Repr. 2; Reproductive toxicity, Category 2  
STOT RE 2; Specific target organ toxicity — repeated exposure, Category 2  
Aquatic Acute 1; Hazardous to the aquatic environment, Acute, Category 1  
Aquatic Chronic 1; Hazardous to the aquatic environment, Chronic , Category 1  
Aquatic Chronic 2; Hazardous to the aquatic environment, Chronic , Category 2  
Aquatic Chronic 3; Hazardous to the aquatic environment, Chronic , Category 3

H314: Causes severe skin burns and eye damage.  
H314: Causes severe skin burns and eye damage.  
H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
H335: May cause respiratory irritation.  
H336: May cause drowsiness or dizziness.  
H361d: Suspected of damaging the unborn child.  
H373: May cause damage to organs through prolonged or repeated exposure.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.  
H411: Toxic to aquatic life with long lasting effects.  
H412: Harmful to aquatic life with long lasting effects.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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