

# **Uni-Mould Tooling Gel-Coat**

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

Date of issue: 24/06/2015

Revision date: 24/06/2015

Version: 1.0

1.1. Product identifier	e substance/mixture and of the company/undertaking
Product form	: Mixture
Product name	: Uni-Mould Tooling Gel-Coat
Type of product	: Resin
1.2. Relevant identified uses of the	e substance or mixture and uses advised against
1.2.1. Relevant identified uses	
Use of the substance/mixture	: Coating
4.0.0 Uses advised excised	
1.2.2. Uses advised against No additional information available	
1.3. Details of the supplier of the s	afety data sheet
Easy Composites Ltd Unit 39, Park Hall Business Village, Stoke Staffordshire, ST3 5XA. United Kingdom. T +44 (0) 1782 454499 (08:00 - 17:30hrs, sales@easycomposites.co.uk - www.easy	Mon-Fri) - F +44 (0)1782 596868
1.4. Emergency telephone number	
Emergency number	: ORFILA - 0033 1 45 42 59 59
SECTION 2: Hazards identificati	ion
2.1. Classification of the substance	
Classification according to Regulation (	
Classification according to Regulation (	
Flam. Liq. 3	H226
Acute Tox. 4 (Inhalation:dust,mist)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Repr. 2	H361
STOT RE 1	H372
Full text of H-statements: see section 16	
Classification according to Directive 67 Xn; R20 Xi; R36/37/38 R10 Xn; R48/20 Full text of R-phrases: see section 16	/548/EEC [DSD] or 1999/45/EC [DPD]
2.2. Label elements	
Labelling according to Regulation (EC) Hazard pictograms (CLP)	
Signal word (CLP)	GHS02 GHS07 GHS08 : Danger
	-
Hazardous ingredients Hazard statements (CLP)	<ul> <li>Styrene</li> <li>H226 - Flammable liquid and vapour H315 - Causes skin irritation H319 - Causes serious eye irritation</li> </ul>
	H332 - Harmful if inhaled

# **Uni-Mould Tooling Gel-Coat**

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			H361 - Suspected of damaging fertility or the unborn child H372 - Causes damage to organs through prolonged or repeated exposure
Precaut	ionary statements (CLP)	:	<ul> <li>P280 - Wear protective gloves, protective clothing, eye protection</li> <li>P241 - Use explosion-proof electrical equipment</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P370+P378 - In case of fire: Use Water fog, foam, extinguishing powder, carbon dioxide (CO2) for extinction</li> <li>P264 - Wash hands thoroughly after handling</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames No smoking</li> </ul>
2.3.	Other hazards		
Adverse physicochemical, human health and environmental effects		:	Flammable liquid and vapour. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation.

# **SECTION 3: Composition/information on ingredients**

# 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Styrene	(CAS No) 100-42-5 (EC no) 202-851-5 (EC index no) 601-026-00-0 (REACH-no) 01- 2119457861-32	30 - 40	Repr.Cat.3; R63 Xn; R20 Xn; R48/20 Xi; R36/38 R10	Flam. Liq. 3, H226 Repr. 2, H361d Acute Tox. 4 (Inhalation), H332 STOT RE 1, H372 Skin Irrit. 2, H315 Eye Irrit. 2, H319
	(CAS No) 64742-95-6 (EC no) 265-199-0 (EC index no) 649-356-00-4 (REACH-no) 01- 2119455851-35	< 1	Xn; R65 N; R51/53 R10 R67 R66 Xi; R37	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
ethanediol, ethylene glycol substance with a Community workplace exposure limit	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 (REACH-no) 01- 2119472426-35	< 1	Xn; R22	Acute Tox. 4 (Oral), H302
xylene substance with a Community workplace exposure limit	(CAS No) 1330-20-7 (EC no) 215-535-7 (EC index no) 601-022-00-9 (REACH-no) 01- 2119488216-32	< 1	R10 Xn; R20/21 Xi; R38	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315
ethylbenzene substance with a Community workplace exposure limit	(CAS No) 100-41-4 (EC no) 202-849-4 (EC index no) 601-023-00-4	< 1	F; R11 Xn; R20 Xn; R65 Xn; R48/20	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
	(CAS No) 95-71-6 (EC no) 202-443-7	< 1	Xn; R22 Xi; R36/38 N; R50	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=10)

# Specific concentration limits:

Name	Product identifier	Specific concentration limits: DSD/DPD	Specific concentration limits: CLP
Styrene	(CAS No) 100-42-5 (EC no) 202-851-5 (EC index no) 601-026-00-0 (REACH-no) 01-2119457861-32	(C >= 12,5) Xn;R20 (C >= 12,5) Xi;R36/38	
xylene	(CAS No) 1330-20-7 (EC no) 215-535-7 (EC index no) 601-022-00-9 (REACH-no) 01-2119488216-32	(C >= 12,5) Xn;R20/21	

Full text of R- and H-statements: see section 16

# SECTION 4: First aid measures 4.1. Description of first aid measures First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

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First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	:	Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	:	Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effect	ts,	both acute and delayed
Symptoms/injuries after skin contact	:	Irritation.
Symptoms/injuries after eye contact	:	Eye irritation.

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

Treat symptomatically.

SECT	ION 5: Firefighting measures	
5.1.	Extinguishing media	
Suitable	e extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2.	Special hazards arising from the su	ibstance or mixture
Fire ha	zard	: Flammable liquid and vapour.
Hazard fire	ous decomposition products in case of	: Toxic fumes may be released.
5.3.	Advice for firefighters	
Protect	ion during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Use water spray or fog for cooling exposed

containers. Prevent entry to sewers and public waters.

SECT	ION 6: Accidental release me	asures
6.1.	Personal precautions, protective	equipment and emergency procedures
6.1.1.	For non-emergency personnel	
Emerge	ency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe vapours. fume.
6.1.2.	For emergency responders	
Protecti	ve equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2.	Environmental precautions	
Avoid re	elease to the environment.	
6.3.	Methods and material for contain	nent and cleaning up
Method	s for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other ir	formation	: Dispose of materials or solid residues at an authorized site.
6.4.	Reference to other sections	
For furt	her information refer to section 13.	
SECT	ION 7: Handling and storage	
7.1.	Precautions for safe handling	
Precaut	ions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the

 Hygiene measures
 : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

 7.2.
 Conditions for safe storage, including any incompatibilities

 Technical measures
 : Ground/bond container and receiving equipment.

 Storage conditions
 : Store in a well-ventilated place. Keep cool. Keep container tightly closed.

 7.3.
 Specific end use(s)

container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special

No additional information available

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

# SECTION 8: Exposure controls/personal protection

8.1. Control parameters					
Styrene (100-42-5)					
United Kingdom	United Kingdom WEL STEL (mg/m³) 1080 mg/m³				
United Kingdom	WEL STEL (ppm)	250 ppm			
ethanediol, ethylene glycol (	107-21-1)				
EU	IOELV TWA (mg/m³)	246 mg/m <sup>3</sup>			
EU	IOELV TWA (ppm)	50 ppm			
EU	IOELV STEL (mg/m <sup>3</sup> )	492 mg/m³			
EU	IOELV STEL (ppm)	100 ppm			
ethylbenzene (100-41-4)					
EU	Local name	Ethylbenzene			
EU	IOELV TWA (mg/m <sup>3</sup> )	442 mg/m <sup>3</sup>			
EU	IOELV TWA (ppm)	100 ppm			
EU	IOELV STEL (mg/m <sup>3</sup> )	884 mg/m³			
EU	IOELV STEL (ppm)	200 ppm			
EU	Notes	Skin			
xylene (1330-20-7)	xylene (1330-20-7)				
EU	Local name	Xylene, mixed isomers, pure			
EU	IOELV TWA (mg/m³)	221 mg/m³			
EU	IOELV TWA (ppm)	50 ppm			
EU	IOELV STEL (mg/m <sup>3</sup> )	442 mg/m³			
EU	IOELV STEL (ppm)	100 ppm			
EU	Notes	Skin			

# 8.2. Exposure controls

Environmental exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear appropriate mask



: Avoid release to the environment.

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and	d chemical properties	
Physical state	: Liquid	
Colour	: Black.	
Odour	: characteristic.	
Odour threshold	: No data available	
рН	: No data available	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Not applicable	
Vapour pressure	: No data available	
Relative vapour density at 20 °C	: No data available	
Relative density	: 1-1,1	
Solubility	: No data available	
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Skin corrosion/irritation

Germ cell mutagenicity

Reproductive toxicity

Carcinogenicity

exposure)

Serious eye damage/irritation

Respiratory or skin sensitisation

Specific target organ toxicity (single exposure)

Specific target organ toxicity (repeated

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

9.2. Other information				
No additional information available				
SECTION 10: Stability and reactivity				
10.1. Reactivity				
Flammable liquid and vapour.				
10.2. Chemical stability				
Stable under normal conditions.				
10.3. Possibility of hazardous reactions				
No dangerous reactions known under normal con	ditions of use.			
10.4. Conditions to avoid				
Avoid contact with hot surfaces. Heat. No flames,	no sparks. Eliminate all sources of ignition.			
10.5. Incompatible materials	0.5. Incompatible materials			
No additional information available				
10.6. Hazardous decomposition products	10.6. Hazardous decomposition products			
Under normal conditions of storage and use, haza	ardous decomposition products should not be produced.			
SECTION 11: Toxicological information				
11.1. Information on toxicological effects	· · · · · · · · · · · · · · · · · · ·			
Acute toxicity	: Inhalation:dust,mist: Harmful if inhaled.			
ATE CLP (dust,mist)	4,028 mg/l/4h			
Styrene (100-42-5)				
LD50 oral	> 5000 mg/kg			
LD50 dermal	> 5000 mg/kg			
ethanediol, ethylene glycol (107-21-1)				
LD50 oral rat	7712 mg/kg			
LD50 dermal	> 3500 mg/kg mouse			
LC50 inhalation rat (mg/l)	> 2,5 mg/l			

: Causes skin irritation.

: Not classified

: Not classified

: Not classified

: Not classified

: Causes serious eye irritation.

Aspiration hazard	: Not classified
<b>SECTION 12: Ecological information</b>	
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Styrene (100-42-5)	
LC50 fish 1	4,02 mg/l
EC50 Daphnia 1	4,7 mg/l
ethanediol, ethylene glycol (107-21-1)	
LC50 fish 1	72860 mg/l
EC50 Daphnia 1	> 100 mg/l
NOEC chronic fish	15380 mg/l
ethanediol, ethylene glycol (107-21-1)	
NOEC chronic crustacea	8590 mg/l
(95-71-6)	
LC50 fish 1	0,09 mg/l (Pimephales promelas; 96h)
12.2. Persistence and degradability	
ethanediol, ethylene glycol (107-21-1)	
Biodegradation	90 - 100 %

: Suspected of damaging fertility or the unborn child.

: Causes damage to organs through prolonged or repeated exposure.

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12.3.	Bioaccumulative potential				
No add	No additional information available				
12.4.	Mobility in soil				
No add	itional information available				
12.5.	Results of PBT and vPvB assessment				
No add	itional information available				
12.6.	Other adverse effects				
No add	itional information available				
SECT	ION 13: Disposal considerations				
13.1.	Waste treatment methods				
Wasta	traatmant mathada	Dianage of contents/container in accordance with licensed collector's partiag instructions			

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information

: Flammable vapours may accumulate in the container.

# **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN				
ADR	IMDG	ΙΑΤΑ		
14.1. UN number				
1866	1866	1866		
14.2. UN proper shippin	g name			
RESIN SOLUTION	RESIN SOLUTION	Resin solution		
Transport document descri				
UN 1866 RESIN	UN 1866 RESIN			
SOLUTION, 3, III, (D/E)	SOLUTION, 3, III			
14.3. Transport hazard of				
3	3	3		
14.4. Packing group				
III	III	III		
14.5. Environmental hazards				
Dangerous for the	Dangerous for the	Dangerous for the environment : No		
environment : No	environment : No Marine pollutant : No			
No supplementary information available				

14.6. Special precautions for user					
- Overland transport					
Special provisions (ADR)	: 640E				
Transport category (ADR)	: 3				
Hazard identification number (Kemler No.)	: 30				
Orange plates	30 1866				
Tunnel restriction code (ADR)	: D/E				
EAC code	: •3YE				
- Transport by sea					
EmS-No. (Fire)	: F-E				
EmS-No. (Spillage)	: S-E				
Stowage category (IMDG)	: A				
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.				
- Air transport					
PCA packing instructions (IATA)	: 355				
CAO packing instructions (IATA)	: 366				
ERG code (IATA)	: 3L				

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#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

#### Not applicable

# **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information			
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.		
Other information	: Information in this safety data sheet is based on actual knowledge in our possession and our experience. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. It is the user's responsibility to take the mentioned precautionary measures and to ensure that this information is complete and sufficient for the use of this product.		

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2	
Asp. Tox. 1	Aspiration hazard, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 2	Flammable liquids, Category 2	
Flam. Liq. 3	Flammable liquids, Category 3	
Repr. 2	Reproductive toxicity, Category 2	
Repr. 2	Reproductive toxicity, Category 2	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1	
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	
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	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H332	Harmful if inhaled	
H335	May cause respiratory irritation	
H361	Suspected of damaging fertility or the unborn child	
H361d	Suspected of damaging the unborn child	
H372	Causes damage to organs through prolonged or repeated exposure	
H373	May cause damage to organs through prolonged or repeated exposure	
H400	Very toxic to aquatic life	

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H411	Toxic to aquatic life with long lasting effects
R10	Flammable
R11	Highly flammable
R20	Harmful by inhalation
R20/21	Harmful by inhalation and in contact with skin
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R36/38	Irritating to eyes and skin
R37	Irritating to respiratory system
R38	Irritating to skin
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R63	Possible risk of harm to the unborn child
R65	Harmful: may cause lung damage if swallowed
R66	Repeated exposure may cause skin dryness or cracking
R67	Vapours may cause drowsiness and dizziness
F	Highly flammable
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

#### SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



# **Uni-Mould Coupling Coat**

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

Date of issue: 19/06/2015

Revision date: 19/06/2015

Version: 1.0

D	ate of Issue: 19/06/2015 Revision date: 19/06/2015 Version:		
SECTION 1: Identification of the	e substance/mixture and of the company/undertaking		
1.1. Product identifier			
Product form	: Mixture		
Product name	: Uni-Mould Coupling Coat		
Type of product	: Resin		
1.2. Relevant identified uses of th	e substance or mixture and uses advised against		
1.2.1. Relevant identified uses			
Use of the substance/mixture	: Resin		
1.2.2. Uses advised against			
No additional information available			
1.3. Details of the supplier of the s	safety data sheet		
Easy Composites Ltd Unit 39, Park Hall Business Village, Stoke Staffordshire, ST3 5XA. United Kingdom. T +44 (0) 1782 454499 (08:00 - 17:30hrs, <u>sales@easycomposites.co.uk</u> - <u>www.easy</u>	Mon-Fri) - F +44 (0)1782 596868		
1.4. Emergency telephone numbe	r		
Emergency number	: ORFILA - 0033 1 45 42 59 59		
SECTION 2: Hazards identificat	ion		
2.1. Classification of the substand	ce or mixture		
Classification according to Regulation	(EC) No. 1272/2008 [CLP]		
Flam. Liq. 3	H226		
Acute Tox. 4 (Inhalation:dust,mist)	H332		
Skin Irrit. 2	Н315		
Eye Irrit. 2	H319		
•			
Repr. 2	H361		
STOT RE 1	H372		
Full text of H-statements: see section 16			
2.2. Label elements			
Labelling according to Regulation (EC)	No. 1272/2008 ICL P1		
Hazard pictograms (CLP)			
Signal word (CLP)	GHS02 GHS07 GHS08 : Danger		
	<b>.</b>		
Hazardous ingredients	: Styrene		
Hazard statements (CLP)	<ul> <li>H226 - Flammable liquid and vapour</li> <li>H315 - Causes skin irritation</li> <li>H319 - Causes serious eye irritation</li> <li>H332 - Harmful if inhaled</li> <li>H361 - Suspected of damaging fertility or the unborn child</li> <li>H372 - Causes damage to organs through prolonged or repeated exposure</li> </ul>		
Precautionary statements (CLP)	<ul> <li>P280 - Wear protective gloves, protective clothing, eye protection</li> <li>P241 - Use explosion-proof electrical equipment</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P370+P378 - In case of fire: Use Water fog, foam, extinguishing powder, carbon dioxide (CG for extinction</li> <li>P264 - Wash hands thoroughly after handling</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames No smoking</li> </ul>		
EUH-statements	: EUH208 - Contains CAS 136-52-7. May produce an allergic reaction		
19/06/2015	EN (English)		

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# 2.3. Other hazards

Adverse physicochemical, human health and environmental effects

: Flammable liquid and vapour. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation.

# SECTION 3: Composition/information on ingredients

# 3.1. Substance

Not applicable

# 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Styrene	(CAS No) 100-42-5 (EC no) 202-851-5 (EC index no) 601-026-00-0 (REACH-no) 01- 2119457861-32	40 - 50	Repr.Cat.3; R63 Xn; R20 Xn; R48/20 Xi; R36/38 R10	Flam. Liq. 3, H226 Repr. 2, H361d Acute Tox. 4 (Inhalation), H332 STOT RE 1, H372 Skin Irrit. 2, H315 Eye Irrit. 2, H319
	(CAS No) 64742-82-1 (EC no) 265-185-4 (EC index no) 649-330-00-2	< 1	R10 N; R51/53 Xn; R65 R66 R67	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Cobalt bis(2-ethylhexanoate)	(CAS No) 136-52-7 (EC no) 205-250-6 (REACH-no) 01- 2119524678-29	< 1	Repr.Cat.3; R62 R43 N; R50/53	Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 2, H361f Aquatic Acute 1, H400 Aquatic Chronic 1, H410
	(CAS No) 64742-95-6 (EC no) 265-199-0 (EC index no) 649-356-00-4 (REACH-no) 01- 2119455851-35	< 1	Xn; R65 N; R51/53 R10 R67 R66 Xi; R37	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
ethanediol, ethylene glycol substance with a Community workplace exposure limit	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 (REACH-no) 01- 2119472426-35	< 1	Xn; R22	Acute Tox. 4 (Oral), H302

# Specific concentration limits:

Name	Product identifier	Specific concentration limits: DSD/DPD	Specific concentration limits: CLP
Styrene	(CAS No) 100-42-5 (EC no) 202-851-5 (EC index no) 601-026-00-0 (REACH-no) 01-2119457861-32	(C >= 12,5) Xn;R20 (C >= 12,5) Xi;R36/38	

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measure	95
First-aid measures general	: IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	<ul> <li>Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.</li> </ul>
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and	effects, both acute and delayed
Symptoms/injuries after skin contact	: Irritation.
Symptoms/injuries after eye contact	: Eye irritation.
4.3. Indication of any immediate me	dical attention and special treatment needed
Treat symptomatically	

Treat symptomatically.

# Safety Data Sheet

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SECT	SECTION 5: Firefighting measures			
5.1.	Extinguishing media			
Suitable extinguishing media		: Water spray. Dry powder. Foam. Carbon dioxide.		
5.2.	Special hazards arising from the su	bstance or mixture		
Fire ha	zard	: Flammable liquid and vapour.		
Hazardous decomposition products in case of fire		: Toxic fumes may be released.		
5.3.	Advice for firefighters			
Protection during firefighting		: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Use water spray or fog for cooling exposed containers. Prevent entry to sewers and public waters.		

SECTI	SECTION 6: Accidental release measures		
6.1.	Personal precautions, protective equ	uipment and emergency procedures	
6.1.1. Emerger	For non-emergency personnel acy procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe vapours. fume.	
6.1.2. Protectiv	For emergency responders e equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
6.2.	Environmental precautions		
Avoid rel	ease to the environment.		
6.3.	Methods and material for containme	ent and cleaning up	
Methods	for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.	
Other inf	ormation	: Dispose of materials or solid residues at an authorized site.	
6.4.	Reference to other sections		
For furth	er information refer to section 13.		
SECTI	ON 7: Handling and storage		
7.1.	Precautions for safe handling		
Precautio	Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. precautionary measures against static discharge. Flammable vapours may accumulate in container. Use explosion-proof equipment. Wear personal protective equipment. Obtain s instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe fume. Use only outdoors or in a well-ventilated area. Avoid c with skin and eyes.		
Hygiene	measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.	
7.2.	Conditions for safe storage, including	ng any incompatibilities	
Technica	Il measures	: Ground/bond container and receiving equipment.	
Storage	conditions	: Store in a well-ventilated place. Keep cool. Keep container tightly closed.	
7.3.	Specific end use(s)		
No addit	No additional information available		

SECTION 8: Exposure controls/personal protection

5.1. Control parameters				
Styrene (100-42-5)	Styrene (100-42-5)			
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	1080 mg/m <sup>3</sup>		
United Kingdom	WEL STEL (ppm)	250 ppm		
ethanediol, ethylene glycol (	ethanediol, ethylene glycol (107-21-1)			
EU	IOELV TWA (mg/m <sup>3</sup> )	246 mg/m <sup>3</sup>		
EU	IOELV TWA (ppm)	50 ppm		
EU	IOELV STEL (mg/m <sup>3</sup> )	492 mg/m <sup>3</sup>		
EU	IOELV STEL (ppm)	100 ppm		

# 8.2. Exposure controls

Appropriate engineering controls

: Ensure good ventilation of the work station.

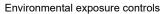
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Hand	protection
rianu	protocitori

- Eye protection
- Skin and body protection
- Respiratory protection





: Avoid release to the environment.

: Wear suitable protective clothing

: Wear appropriate mask

: Protective gloves

: Safety glasses

SECTION 9: Physical and chemical	properties	
9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Colour	: orange.	
Odour	: characteristic.	
Odour threshold	: No data available	
pН	: No data available	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Not applicable	
Vapour pressure	: No data available	
Relative vapour density at 20 °C	: No data available	
Relative density	: 1,08 - 1,1	
Solubility	: No data available	
Log Pow	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosive properties	: No data available	
Oxidising properties	: No data available	
Explosive limits	: No data available	
9.2. Other information		
No additional information available		
SECTION 10: Stability and reactivit	у .	
10.1. Reactivity		
Flammable liquid and vapour.		
10.2. Chemical stability		
Stable under normal conditions.		
10.3. Possibility of hazardous reactions		
No dangerous reactions known under normal c		

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information			
11.1. Information on toxicological effects			
Acute toxicity	Inhalation:dust,mist: Harmful if inhaled.		
ATE CLP (dust,mist)	3,471 mg/l/4h		
Styrene (100-42-5)			
LD50 oral	> 5000 mg/kg		
LD50 dermal	> 5000 mg/kg		
ethanediol, ethylene glycol (107-21-1)			
LD50 oral rat	7712 mg/kg		
LD50 dermal	> 3500 mg/kg mouse		
LC50 inhalation rat (mg/l)	> 2,5 mg/l		
Skin corrosion/irritation	Causes skin irritation.		
Serious eye damage/irritation	: Causes serious eye irritation.		
Respiratory or skin sensitisation	Not classified		
Germ cell mutagenicity	Not classified		
Carcinogenicity	: Not classified		
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.		
Specific target organ toxicity (single exposure)	: Not classified		
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.		
Aspiration hazard	: Not classified		

# SECTION 12: Ecological information

12.1	Tox	icity

Ecology - general

: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Styrene (100-42-5)	
LC50 fish 1	4,02 mg/l
EC50 Daphnia 1	4,7 mg/l
ethanediol, ethylene glycol (107-21-1)	
LC50 fish 1	72860 mg/l
EC50 Daphnia 1	> 100 mg/l
NOEC chronic fish	15380 mg/l
NOEC chronic crustacea	8590 mg/l

12.2. Persistence and degradability	Persistence and degradability		
ethanediol, ethylene glycol (107-21-1)			
Biodegradation	90 - 100 %		
12.3. Bioaccumulative potential			
No additional information available			
12.4. Mobility in soil			
No additional information available			
12.5. Results of PBT and vPvB assessmen	it		
No additional information available			
12.6. Other adverse effects			
No additional information available			
SECTION 13: Disposal considerations			
13.1. Waste treatment methods			
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.			
Additional information	: Flammable vapours may accumulate in the container.		

# **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

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ADR	IMDG	ΙΑΤΑ	
14.1. UN number			
1866	1866	1866	
14.2. UN proper shippin	g name		
RESIN SOLUTION	RESIN SOLUTION	Resin solution	
Transport document descri	otion		
UN 1866 RESIN SOLUTION, 3, III, (D/E)	UN 1866 RESIN SOLUTION, 3, III		
14.3. Transport hazard of	class(es)		
3	3	3	
14.4. Packing group			
111	III	III	
14.5. Environmental hazards			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	
	No supplementary information available		

#### 14.6. Special precautions for user

# - Overland transport

Special provisions (ADR)	:	640E
Transport category (ADR)	:	3
Hazard identification number (Kemler No.)	:	30
Orange plates	:	<u>30</u> 1866
Tunnel restriction code (ADR)	:	D/E
EAC code	:	•3YE
- Transport by sea		
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-E
Stowage category (IMDG)	:	A
Properties and observations (IMDG)	:	Miscibility with water depends upon the composition.
- Air transport		
PCA packing instructions (IATA)	:	355
CAO packing instructions (IATA)	:	366
ERG code (IATA)	:	3L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

# SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

# 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

# 15.1.2. National regulations

No additional information available

# 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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# **SECTION 16: Other information**

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: Information in this safety data sheet is based on actual knowledge in our possession and our experience. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. It is the user's responsibility to take the mentioned precautionary measures and to ensure that this information is complete and sufficient for the use of this product.

#### Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H304     May be fatal if swallowed and enters airways       H315     Causes skin irritation	
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H361d	Suspected of damaging the unborn child
H361f	Suspected of damaging fertility
H372	Causes 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
EUH208	Contains . May produce an allergic reaction
R10	Flammable
R20	Harmful by inhalation
R22	Harmful if swallowed
R36/38	Irritating to eyes and skin
R37	Irritating to respiratory system
R43	May cause sensitisation by skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R62	Possible risk of impaired fertility
R63	Possible risk of harm to the unborn child
R65	Harmful: may cause lung damage if swallowed
R66	Repeated exposure may cause skin dryness or cracking
R67	Vapours may cause drowsiness and dizziness
Ν	Dangerous for the environment
Xi	Irritant
Xn	Harmful

#### SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010 Date of issue: 22/05/2015 Revision date: 22/05/2015 Supersedes: 06/05/2015

SECT	ION 1: Identification of the s	substance/mixture and of the company/undertaking
1.1.	Product identifier	substance/mixture and or the company/undertaking
Product		: Mixture
Product		: Uni-Mould Tooling Resin
	product	: Resin
1.2.		ubstance or mixture and uses advised against
1.2.1.	Relevant identified uses	
	e category	: Industrial use
muusina	al/Professional use spec	: Intended for general public Industrial
Use of t	he substance/mixture	Industrial laminating resin, casting, injection, winding, infusion, gluing, foaming, coatings and sealants.
1.2.2.	Uses advised against	
No addi	tional information available	
1.3.	Details of the supplier of the safe	ety data sheet
Unit 39, Staffords T +44 (0	mposites Ltd Park Hall Business Village, Stoke on shire, ST3 5XA. United Kingdom. ) 1782 454499 (08:00 - 17:30hrs, Mc easycomposites.co.uk - www.easycon	on-Fri) - F +44 (0)1782 596868
1.4.	Emergency telephone number	
Emerge	ncy number	: ORFILA (FRANCE) : +33 (0)1 45 42 59 59 (24h/24, 7j/7)
SECT	ION 2: Hazards identificatio	n
2.1.	Classification of the substance of	or mixture
Classific	cation according to Regulation (EC) N	No. 1272/2008 [CLP]
Flam. Li		H226
Skin Irri	t. 2	H315
Eye Irrit	. 2	H319
Skin Se	ns. 1	H317
Repr. 2		H361
STOT R	RE 1	H372
Full text	of H-phrases: see section 16	
2.2.	Label elements	
	ng according to Regulation (EC) No pictograms (CLP)	
Signal		GHS02 GHS07 GHS08
-	vord (CLP) ous ingredients	: Danger : Styrene, Cobalt bis(2-ethylhexanoate), methyl methacrylate, methyl 2-methylprop-2-enoate,
1 1020100		methyl 2-methylpropenoate
Hazard	statements (CLP)	<ul> <li>H226 - Flammable liquid and vapour</li> <li>H315 - Causes skin irritation</li> <li>H317 - May cause an allergic skin reaction</li> <li>H319 - Causes serious eye irritation</li> <li>H361 - Suspected of damaging fertility or the unborn child</li> <li>H372 - Causes damage to organs through prolonged or repeated exposure</li> </ul>
Precaut	ionary statements (CLP)	<ul> <li>P280 - Wear protective gloves, protective clothing, eye protection</li> <li>P241 - Use explosion-proof electrical equipment</li> <li>P271 - Use only outdoors or in a well-ventilated area</li> <li>P370+P378 - In case of fire: Use Water fog, foam, extinguishing powder, carbon dioxide (CO2 for extinction</li> <li>P264 - Wash hands thoroughly after handling</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames No smoking</li> </ul>
27/05/20	15	EN (English) 1/7

Version: 2.1

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# 2.3. Other hazards

Adverse physicochemical, human health and environmental effects

: Flammable liquid and vapour. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation.

# SECTION 3: Composition/information on ingredients

# 3.1. Substance

# Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Styrene	(CAS No) 100-42-5 (EC no) 202-851-5 (EC index no) 601-026-00-0 (REACH-no) 01- 2119457861-32	20 - 30	Repr.Cat.3; R63 Xn; R20 Xn; R48/20 Xi; R36/38 R10	Flam. Liq. 3, H226 Repr. 2, H361d Acute Tox. 4 (Inhalation), H332 STOT RE 1, H372 Skin Irrit. 2, H315 Eye Irrit. 2, H319
methyl methacrylate, methyl 2- methylprop-2-enoate, methyl 2- methylpropenoate	(CAS No) 80-62-6 (EC no) 201-297-1 (EC index no) 607-035-00-6 (REACH-no) 01- 2119452498-28	1 - 5	F; R11 Xi; R37/38 R43	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335
ethanediol, ethylene glycol substance with a Community workplace exposure limit	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1 (REACH-no) 01- 2119472426-35	< 1	Xn; R22	Acute Tox. 4 (Oral), H302
Cobalt bis(2-ethylhexanoate)	(CAS No) 136-52-7 (EC no) 205-250-6 (REACH-no) 01- 2119524678-29	< 1	Repr.Cat.3; R62 R43 N; R50/53	Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 2, H361f Aquatic Acute 1, H400 Aquatic Chronic 1, H410
	(CAS No) 95-71-6 (EC no) 202-443-7	< 1	Xn; R22 Xi; R36/38 N; R50	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=10)

Specific concentration limits:			
Name	Product identifier	Specific concentration limits: DSD/DPD	Specific concentration limits: CLP
Styrene	(CAS No) 100-42-5 (EC no) 202-851-5 (EC index no) 601-026-00-0 (REACH-no) 01-2119457861-32	(C >= 12,5) Xn;R20 (C >= 12,5) Xi;R36/38	

# Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures	
SECTION 4: First and measures	
4.1. Description of first aid measures	
First-aid measures general	: IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	<ul> <li>Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.</li> </ul>
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy t do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and ef	fects, both acute and delayed
Symptoms/injuries after skin contact	: Irritation.
Symptoms/injuries after eye contact	: Eye irritation.
4.3 Indication of any immediate medi	cal attention and special treatment needed

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

Treat symptomatically.

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.

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according to Regulation (EC) No. 1907/2	2006 (REACH) with its amendment Regulation (EC) No. 453/2010			
5.2. Special hazards arising from the substance or mixture				
Fire hazard	: Flammable liquid and vapour.			
Hazardous decomposition products	s in case of . Toxic fumes may be released.			
fire				
5.3. Advice for firefighters				
Protection during firefighting	: Do not attempt to take action without suitable protective equipm apparatus. Complete protective clothing. Use water spray or for containers. Prevent entry to sewers and public waters.			
<b>SECTION 6: Accidental re</b>	lease measures			
6.1. Personal precautions,	protective equipment and emergency procedures			
6.1.1. For non-emergency pe	rsonnel			
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smo and eyes. Do not breathe vapours. fume.	oking. Avoid contact with skin		
6.1.2. For emergency respon	ders			
Protective equipment	: Do not attempt to take action without suitable protective equipm refer to section 8: "Exposure controls/personal protection".	nent. For further information		
6.2. Environmental precaut	ions			
Avoid release to the environment.				
6.3. Methods and material f	or containment and cleaning up			
Methods for cleaning up	<ul> <li>Take up liquid spill into absorbent material. Notify authorities if waters.</li> </ul>	product enters sewers or public		
Other information	: Dispose of materials or solid residues at an authorized site.			
6.4. Reference to other sec	tions			
For further information refer to sec	tion 13.			
<b>SECTION 7: Handling and</b>	storage			
7.1. Precautions for safe ha	Indling			
Precautions for safe handling				
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or Always wash hands after handling the product.	smoke when using this product.		
7.2. Conditions for safe sto	rage, including any incompatibilities			
Technical measures	: Ground/bond container and receiving equipment.			
Storage conditions	: Store in a well-ventilated place. Keep cool. Keep container tight	tly closed.		
7.3. Specific end use(s)				
No additional information available				
SECTION 8: Exposure controls/personal protection				
8.1. Control parameters				
Styrene (100-42-5)				
	VEL STEL (mg/m <sup>3</sup> ) 1080 mg/m <sup>3</sup>			
	VEL STEL (ppm) 250 ppm			
methyl methacrylate, methyl 2-methylprop-2-enoate, methyl 2-methylpropenoate (80-62-6)				
	ocal name Methyl methacrylate			
	, ,			

EU	Local name	Methyl methacrylate
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (ppm)	100 ppm
ethanediol, ethylene glycol (107-21-1)		
EU	IOELV TWA (mg/m <sup>3</sup> )	246 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	492 mg/m³
EU	IOELV STEL (ppm)	100 ppm

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8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear appropriate mask



Environmental exposure controls

: Avoid release to the environment.

SECTION 9: Physical and chemical properties			
9.1. Information on basic physical and chemical properties			
Physical state	: Liquid		
Colour	: No data available		
Odour	: characteristic.		
Odour threshold	: No data available		
рН	: No data available		
Relative evaporation rate (butylacetate=1)	: No data available		
Melting point	: Not applicable		
Freezing point	: No data available		
Boiling point	: No data available		
Flash point	: No data available		
Auto-ignition temperature	: No data available		
Decomposition temperature	: No data available		
Flammability (solid, gas)	: Not applicable		
Vapour pressure	: No data available		
Relative vapour density at 20 °C	: No data available		
Relative density	: 1,41 - 1,45		
Solubility	: No data available		
Log Pow	: No data available		
Viscosity, kinematic	: No data available		
Viscosity, dynamic	: No data available		
Explosive properties	: No data available		
Oxidising properties	: No data available		
Explosive limits	: No data available		
9.2. Other information			
No additional information available			
<b>SECTION 10: Stability and reactivity</b>	/		
10.1. Reactivity			
Flammable liquid and vapour.			
10.2. Chemical stability			
Stable under normal conditions.	,		
10.3. Possibility of hazardous reactions			
No dangerous reactions known under normal conditions of use.			
10.4. Conditions to avoid			
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.			
10.5. Incompatible materials			
No additional information available			
10.6. Hazardous decomposition products			
Under normal conditions of storage and use, hazardous decomposition products should not be produced.			

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

according to Regulation (EC) No. 1907/2006 (REACH) v	
SECTION 11: Toxicological informati	ion
11.1. Information on toxicological effects	
Acute toxicity	: Not classified
Styrene (100-42-5)	
LD50 oral	> 5000 mg/kg
LD50 dermal	> 5000 mg/kg
	-enoate, methyl 2-methylpropenoate (80-62-6)
LD50 oral rat	7872 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	29,8 mg/l/4h
	20,0 mg//mm
ethanediol, ethylene glycol (107-21-1)	7740 m = 10 m
LD50 oral rat	7712 mg/kg
LD50 dermal	> 3500 mg/kg mouse
LC50 inhalation rat (mg/l) Skin corrosion/irritation	> 2,5 mg/l : Causes skin irritation.
Skil conosion/initiation Serious eye damage/irritation	: Causes serious eye irritation.
• •	•
Respiratory or skin sensitisation Germ cell mutagenicity	: May cause an allergic skin reaction. : Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
SECTION 12: Ecological information	
12.1 Toxicity	
12.1. Toxicity	
	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
,	
Ecology - general	
Ecology - general Styrene (100-42-5)	effects in the environment.
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1	effects in the environment. 4,02 mg/l
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1	effects in the environment. 4,02 mg/l 4,7 mg/l
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6)
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1	effects in the environment.  4,02 mg/l 4,7 mg/l  -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas)
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1	effects in the environment.  4,02 mg/l 4,7 mg/l  -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas)
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1 ethanediol, ethylene glycol (107-21-1)	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h)
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1 ethanediol, ethylene glycol (107-21-1) LC50 fish 1	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h) 72860 mg/l
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1 ethanediol, ethylene glycol (107-21-1) LC50 fish 1 EC50 Daphnia 1	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h) 72860 mg/l > 100 mg/l
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1 ethanediol, ethylene glycol (107-21-1) LC50 fish 1 EC50 Daphnia 1 NOEC chronic fish NOEC chronic crustacea	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h) 72860 mg/l > 100 mg/l 15380 mg/l
Ecology - general Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1 methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1 ethanediol, ethylene glycol (107-21-1) LC50 fish 1 EC50 Daphnia 1 NOEC chronic fish	effects in the environment.         4,02 mg/l         4,7 mg/l         -enoate, methyl 2-methylpropenoate (80-62-6)         130 mg/l (Pimephales promelas)         69 mg/l (daphnia magna; 48h)         72860 mg/l         > 100 mg/l         15380 mg/l         8590 mg/l
Ecology - general  Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1  methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1 ethanediol, ethylene glycol (107-21-1) LC50 fish 1 EC50 Daphnia 1 NOEC chronic fish NOEC chronic fish NOEC chronic crustacea  (95-71-6) LC50 fish 1	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h) 72860 mg/l > 100 mg/l 15380 mg/l
Styrene (100-42-5)         LC50 fish 1         EC50 Daphnia 1         methyl methacrylate, methyl 2-methylprop-2         LC50 fish 1         EC50 Daphnia 1         ethanediol, ethylene glycol (107-21-1)         LC50 fish 1         EC50 Daphnia 1         ethanediol, ethylene glycol (107-21-1)         LC50 fish 1         EC50 Daphnia 1         NOEC chronic fish         NOEC chronic crustacea         (95-71-6)         LC50 fish 1	effects in the environment.         4,02 mg/l         4,7 mg/l         -enoate, methyl 2-methylpropenoate (80-62-6)         130 mg/l (Pimephales promelas)         69 mg/l (daphnia magna; 48h)         72860 mg/l         > 100 mg/l         15380 mg/l         8590 mg/l
Ecology - general         Styrene (100-42-5)         LC50 fish 1         EC50 Daphnia 1         methyl methacrylate, methyl 2-methylprop-2         LC50 fish 1         EC50 Daphnia 1         ethanediol, ethylene glycol (107-21-1)         LC50 fish 1         EC50 Daphnia 1         NOEC chronic fish         NOEC chronic crustacea         (95-71-6)         LC50 fish 1         12.2.         Persistence and degradability         ethanediol, ethylene glycol (107-21-1)	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h) 72860 mg/l > 100 mg/l 15380 mg/l 8590 mg/l 0,09 mg/l (Pimephales promelas; 96h)
Ecology - general  Styrene (100-42-5) LC50 fish 1 EC50 Daphnia 1  methyl methacrylate, methyl 2-methylprop-2 LC50 fish 1 EC50 Daphnia 1  ethanediol, ethylene glycol (107-21-1) LC50 fish 1 EC50 Daphnia 1 NOEC chronic fish NOEC chronic crustacea (95-71-6) LC50 fish 1  12.2. Persistence and degradability ethanediol, ethylene glycol (107-21-1) Biodegradation	effects in the environment.         4,02 mg/l         4,7 mg/l         -enoate, methyl 2-methylpropenoate (80-62-6)         130 mg/l (Pimephales promelas)         69 mg/l (daphnia magna; 48h)         72860 mg/l         > 100 mg/l         15380 mg/l         8590 mg/l
Ecology - general         Styrene (100-42-5)         LC50 fish 1         EC50 Daphnia 1         methyl methacrylate, methyl 2-methylprop-2         LC50 fish 1         EC50 Daphnia 1         ethanediol, ethylene glycol (107-21-1)         LC50 fish 1         EC50 Daphnia 1         NOEC chronic fish         NOEC chronic crustacea         (95-71-6)         LC50 fish 1         12.2. Persistence and degradability         ethanediol, ethylene glycol (107-21-1)         Biodegradation         12.3. Bioaccumulative potential	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h) 72860 mg/l > 100 mg/l 15380 mg/l 8590 mg/l 0,09 mg/l (Pimephales promelas; 96h)
Styrene (100-42-5)         LC50 fish 1         EC50 Daphnia 1         methyl methacrylate, methyl 2-methylprop-2         LC50 fish 1         EC50 Daphnia 1         ethanediol, ethylene glycol (107-21-1)         LC50 fish 1         EC50 Daphnia 1         NOEC chronic fish         NOEC chronic crustacea         (95-71-6)         LC50 fish 1         12.2.         Persistence and degradability         ethanediol, ethylene glycol (107-21-1)         Biodegradation	effects in the environment. 4,02 mg/l 4,7 mg/l -enoate, methyl 2-methylpropenoate (80-62-6) 130 mg/l (Pimephales promelas) 69 mg/l (daphnia magna; 48h) 72860 mg/l > 100 mg/l 15380 mg/l 8590 mg/l 0,09 mg/l (Pimephales promelas; 96h)

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

# 12.6. Other adverse effects

No additional information available

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

# SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods Waste treatment methods

Additional information

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Flammable vapours may accumulate in the container.

# **SECTION 14: Transport information** accordance with ADR / RID / IMDG / IATA / ADN

In accordance with ADR / RID / IMDG / IATA / ADN			
ADR	IMDG	ΙΑΤΑ	
14.1. UN number			
1866	1866	1866	
14.2. UN proper shippin	g name		
RESIN SOLUTION	RESIN SOLUTION	Resin solution	
Transport document descri	ption		
UN 1866 RESIN	UN 1866 RESIN		
SOLUTION, 3, III, (D/E)	SOLUTION, 3, III		
14.3. Transport hazard	class(es)		
3	3	3	
14.4. Packing group			
Ш	111	III	
14.5. Environmental haz	14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	
	No supplementary information available		
14.6. Special precautions for user			

#### - Overland transport : 640E Special provisions (ADR) : 3 Transport category (ADR) Hazard identification number (Kemler No.) : 30 Orange plates 1 30 1866 Tunnel restriction code (ADR) : D/E •3YE EAC code - Transport by sea F-E EmS-No. (Fire) EmS-No. (Spillage) Stowage category (IMDG) Properties and observations (IMDG) S-E А Miscibility with water depends upon the composition. • - Air transport PCA packing instructions (IATA) CAO packing instructions (IATA) :355 :366

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code 14.7.

Not applicable

ERG code (IATA)

# SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1.

3L

#### 15.1.1. **EU-Regulations**

Contains no substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

#### **National regulations** 15.1.2.

No additional information available

#### **Chemical safety assessment** 15.2.

No chemical safety assessment has been carried out

27/05/2015

EN (English)

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

SECTION 16: Other information	
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: Information in this safety data sheet is based on actual knowledge in our possession and our experience. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. It is the user's responsibility to take the mentioned precautionary measures and to ensure that this information is complete and sufficient for the use of this product.

#### Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child
H361d	Suspected of damaging the unborn child
H361f	Suspected of damaging fertility
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R10	Flammable
R11	Highly flammable
R20	Harmful by inhalation
R22	Harmful if swallowed
R36/38	Irritating to eyes and skin
R37/38	Irritating to respiratory system and skin
R43	May cause sensitisation by skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R50	Very toxic to aquatic organisms
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R62	Possible risk of impaired fertility
R63	Possible risk of harm to the unborn child
F	Highly flammable
Ν	Dangerous for the environment
Xi	Irritant
Xn	Harmful
	1

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



# SAFETY DATA SHEET **MEKP**

1.1. Product identifier	of the substance/mixture and of the company/undertaking
Product name	МЕКР
Product number	МЕКР
1.2. Relevant identified use	es of the substance or mixture and uses advised against
Identified uses	Activator.
Uses advised against	No specific uses advised against are identified.
1.3. Details of the supplier	of the safety data sheet
Supplier	Easy Composites Ltd Unit 39, Park Hall Business Village Longton, Stoke-on-Trent ST3 5XA United Kingdom
Email	sales@easycomposites.co.uk
1.4. Emergency telephone	number
Emergency telephone	+44 (0)1782 454499
SECTION 2: Hazards ident	ification
2.1. Classification of the su	bstance or mixture
<u>Classification</u>	
<b>Physical hazards</b> Org. Perox. D - H242	
Health hazards Acute Tox. 4 - H302 Skin (	Corr. 1B - H314 Eye Dam. 1 - H318
Environmental hazards Not Classified	
Classification (67/548/EEC O; R7. Xn; R22. C; R34	; or 1999/45/EC)
2.2. Label elements	
Pictogram	

Pictogram



Signal word Hazard statements Danger





H242 Heating may cause a fire. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage.

# Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep away from acids, alkalis, heavy metal compounds, oxidising material, combustible materials.
P234 Keep only in original container.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P411+235 Store at temperatures not exceeding 30°C. Keep cool.
P501 Dispose of contents/container in accordance with national regulations.
methyl ethyl ketone peroxide

# Supplementary precautionary statements

P260 Do not breathe vapour/spray.

P264 Wash contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P321 Specific treatment (see medical advice on this label).

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P410 Protect from sunlight.

P420 Store away from other materials.

# 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

# SECTION 3: Composition/information on ingredients

# 3.2. Mixtures

Contains

dimethyl phthalate CAS number: 131-11-3 EC number: 205-011-6		50 - 100%
Classification Not Classified	Classification (67/548/EEC or 1999/45/EC)	
methyl ethyl ketone peroxide CAS number: 1338-23-4 EC number: 215-661-2		25 - <50%
Classification Org. Perox. D - H242 Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318	Classification (67/548/EEC or 1999/45/EC) O; R7. Xn; R22. C; R34	

2.5 - <5%

# **Easy Composites SDS - MEKP**

# butanone

CAS number: 78-93-3 EC number: 201-159-0

#### Classification

Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336 Classification (67/548/EEC or 1999/45/EC) F; R11. Xi; R36. R67

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

# SECTION 4: First aid measures

# 4.1. Description of first aid measures

#### **General information**

Remove affected person from source of contamination. Promptly remove any clothing that becomes contaminated.

#### Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.

#### Ingestion

Do not induce vomiting. Get medical attention.

#### Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention. Wash contaminated clothing before reuse.

#### Eye contact

Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

# **General information**

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

#### Inhalation

Vapours may cause drowsiness and dizziness. May cause respiratory system irritation.

# Ingestion

Harmful if swallowed. May cause chemical burns in mouth, oesophagus and stomach.

# Skin contact

Severe skin irritation. Blistering may occur.

# Eye contact

May cause blurred vision and serious eye damage. Symptoms following overexposure may include the following: Blindness.

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

#### Notes for the doctor

Treat symptomatically.

#### **SECTION 5: Firefighting measures**

# 5.1. Extinguishing media

# Suitable extinguishing media

Water spray, fog or mist. Carbon dioxide (CO2).

# Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire. Dry chemical fire extinguishing agent may catalyse the decomposition.

# 5.2. Special hazards arising from the substance or mixture

#### Specific hazards

The heat of decomposition of the peroxides adds to the heat of the fire. Dry chemical fire extinguishing agent may catalyse the

decomposition.

# Hazardous combustion products

Acetic acid. Carbon dioxide (CO2). Carbon monoxide (CO). Formic acid Propanoic acid.

# 5.3. Advice for firefighters

# Protective actions during firefighting

Avoid breathing fire gases or vapours. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. If dry chemical is used to extinguish a methyl ethyl ketone peroxide fire, the extinguished area must be thoroughly wetted down with water to prevent re-ignition.

# Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

# SECTION 6: Accidental release measures

# 6.1. Personal precautions, protective equipment and emergency procedures

# Personal precautions

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes.

# 6.2. Environmental precautions

# Environmental precautions

Do not discharge into drains or watercourses or onto the ground.

# 6.3. Methods and material for containment and cleaning up

# Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Eliminate all sources of ignition. Do not touch or walk into spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Dispose of contents/container in accordance with national regulations.

# 6.4. Reference to other sections

# Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

# SECTION 7: Handling and storage

# 7.1. Precautions for safe handling

# Usage precautions

Read and follow manufacturer's recommendations. Avoid inhalation of vapours and contact with skin and eyes. Do not handle broken packages without protective equipment.

# Advice on general occupational hygiene

Do not smoke in work area. Eye wash facilities and emergency shower must be available when handling this product. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

# 7.2. Conditions for safe storage, including any incompatibilities

# Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs. Keep at temperature not exceeding 25°C. Keep away from oxidising materials, heat and flames.

# 7.3. Specific end use(s)

# Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

# SECTION 8: Exposure Controls/personal protection

# 8.1. Control parameters

# Occupational exposure limits

# dimethyl phthalate

Long-term exposure limit (8-hour TWA): WEL 5 mg/m3 Short-term exposure limit (15-minute): WEL 10 mg/m3

# methyl ethyl ketone peroxide

Short-term exposure limit (15-minute): WEL 0.2 ppm 1.5 mg/m3

# butanone

Long-term exposure limit (8-hour TWA): WEL 200 ppm 600 mg/m3 Short-term exposure limit (15-minute): WEL 300 ppm 899 mg/m3 Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

# dimethyl phthalate (CAS: 131-11-3)

DNEL	Workers - Dermal; Long term systemic effects: 100 mg/kg/day Workers - Inhalation; Long term systemic effects: 293.86 mg/m <sup>3</sup> Consumer - Dermal; Long term systemic effects: 60 mg/kg/day Consumer - Inhalation; Long term systemic effects: 86.96 mg/m <sup>3</sup> Consumer - Oral; Long term systemic effects: 25 mg/kg/day		
PNEC	<ul> <li>Fresh water; 0.192 mg/l</li> <li>Marine water; 0.0192 mg/l</li> <li>Intermittent release; 0.39 mg/l</li> <li>STP; 4 mg/l</li> <li>Sediment (Freshwater); 1.403 mg/kg</li> <li>Soil; 3.16 mg/kg</li> </ul>		
methyl ethyl ketone peroxide (CAS: 1338-23-4)			
DNEL	Workers - Dermal; Long term systemic effects: 1.08 mg/kg/day Workers - Inhalation; Long term systemic effects: 1.9 mg/m <sup>3</sup> Consumer - Dermal; Long term systemic effects: 0.54 mg/kg/day Consumer - Inhalation; Long term systemic effects: 0.41 mg/m <sup>3</sup> Consumer - Oral; Long term systemic effects: 0.27 mg/kg/day		
PNEC	<ul> <li>Fresh water; 5.6 µg/l</li> <li>Marine water; 0.56 µg/l</li> <li>Intermittent release; 56 µg/l</li> <li>STP; 1.2 mg/l</li> <li>Sediment (Freshwater); 19 µg/kg</li> <li>Sediment (Marinewater); 1.9 µg/kg</li> <li>Soil; 2.31 µg/kg</li> </ul>		
	butanone (CAS: 78-93-3)		
DNEL	Workers - Dermal; Long term systemic effects: 1161 mg/kg/day Workers - Inhalation; Long term systemic effects: 600 mg/m <sup>3</sup> Consumer - Dermal; Long term systemic effects: 412 mg/kg/day Consumer - Inhalation; Long term systemic effects: 106 mg/m <sup>3</sup> Consumer - Oral; Long term systemic effects: 31 mg/kg/day		
PNEC	<ul> <li>Fresh water; 55.8 mg/l</li> <li>Marine water; 55.8 mg/l</li> <li>Intermittent release; 55.8 mg/l</li> <li>STP; 709 mg/l</li> <li>Sediment (Freshwater); 284.7 mg/kg</li> <li>Sediment (Marinewater); 284.7 mg/kg</li> <li>Soil; 22.5 mg/kg</li> </ul>		

8.2. Exposure controls

# Protective equipment









#### Appropriate engineering controls

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. Use explosion-proof general and local exhaust ventilation.

# Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

# Hand protection

Wear protective gloves made of the following material: Neoprene. Nitrile rubber. Butyl rubber. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

#### Other skin and body protection

Wear suitable coveralls to prevent exposure to the skin.

# Hygiene measures

Do not smoke in work area. Provide eyewash station and safety shower. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

#### **Respiratory protection**

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour filter.

# Environmental exposure controls

Keep container tightly sealed when not in use.

# SECTION 9: Physical and Chemical Properties

# 9.1. Information on basic physical and chemical properties

#### Appearance

Liquid.

Colour Colourless.

#### Colouries

Odour

Characteristic.

# Odour threshold

Not available.

# pН

Not available.

Melting point Not available.

**Initial boiling point and range** Not available.

Flash point 93°C CC (Closed cup).

Evaporation rate Not available.

# Evaporation factor

Not available.

**Upper/lower flammability or explosive limits** Not available.

#### Vapour pressure

Not available.

Vapour density > 1

Relative density 1.18 @ 20°C

**Bulk density** Not available.

Solubility(ies) Slightly soluble in water.

Partition coefficient Not available.

Auto-ignition temperature Not available.

**Decomposition Temperature** 60°C

Viscosity 24 mPa s @ 20°C

Explosive properties Not considered to be explosive.

Oxidising properties

Not available.

9.2. Other information

Active Oxygen

8.8-9.0

# SECTION 10: Stability and reactivity

# 10.1. Reactivity

See the other subsections of this section for further details.

# 10.2. Chemical stability

Stability

Stable at normal ambient temperatures and when used as recommended.

# 10.3. Possibility of hazardous reactions

Reactions with the following materials may generate heat: Alkalis. Amines. Reducing agents. Strong acids.

# 10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight.

# 10.5. Incompatible materials

# Materials to avoid

Reducing agents. Dimethylaniline. Cobalt naphthenate and other promoters. Strong acids. Strong alkalis. Promoted resins. Amines. Accelerators. Sulphur compounds. Hot material. 7. Heavy metals and their salts

# 10.6. Hazardous decomposition products

Does not decompose when used and stored as recommended.

# SECTION 11: Toxicological information

# 11.1. Information on toxicological effects

# Acute toxicity - oral

Notes (oral LD50)

Harmful if swallowed.

500.0

# Acute toxicity - dermal

# Notes (dermal LD50)

Based on available data the classification criteria are not met.

# Acute toxicity - inhalation

# Notes (inhalation LC50)

Based on available data the classification criteria are not met.

# Skin corrosion/irritation

Animal data Corrosive to skin.

# Serious eye damage/irritation Corrosivity to eyes is assumed.

<u>Respiratory sensitisation</u> Based on available data the classification criteria are not met.

# Skin sensitisation

Based on available data the classification criteria are not met.

# Germ cell mutagenicity

# Genotoxicity - in vitro

Based on available data the classification criteria are not met.

# <u>Carcinogenicity</u> Based on available data the classification criteria are not met.

# Reproductive toxicity

# **Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

# Reproductive toxicity - development

Based on available data the classification criteria are not met.

# Specific target organ toxicity - single exposure

# STOT - single exposure

Based on available data the classification criteria are not met.

# Specific target organ toxicity - repeated exposure

# STOT - repeated exposure

Based on available data the classification criteria are not met.

# Aspiration hazard

Based on available data the classification criteria are not met.

# Toxicological information on ingredients.

# methyl ethyl ketone peroxide

# Acute toxicity - oral

# Acute toxicity oral (LD50 mg/kg)

1,017.0

# Species

Rat

# Notes (oral LD50)

REACH dossier information. Based on available data the classification criteria are not met.

# ATE oral (mg/kg) 1.017.0

# Acute toxicity - dermal

# Acute toxicity dermal (LD50 mg/kg)

4000.0

# Species

Rabbit

# Notes (dermal LD50)

REACH dossier information. Based on available data the classification criteria are not met.

ATE dermal (mg/kg)

4000.0

# Acute toxicity - inhalation

Notes (inhalation LC50)

Based on available data the classification criteria are not met.

# Skin corrosion/irritation

# Animal data

Dose: 0.5 mL, 24 hours, Rabbit Erythema/eschar score: Severe erythema (beef redness) to eschar formation preventing grading of erythema (4). Oedema score: Slight oedema - edges of area well defined by definite raising (2). REACH dossier information. Corrosive.

# Serious eye damage/irritation

Corrosive to skin. Corrosivity to eyes is assumed.

# **Respiratory sensitisation**

Based on available data the classification criteria are not met.

#### Skin sensitisation

Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

# Germ cell mutagenicity

#### Genotoxicity - in vitro

Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

# **Carcinogenicity**

Based on available data the classification criteria are not met.

# Reproductive toxicity

# Reproductive toxicity - fertility

Screening - NOAEL 75 mg/kg/day, Oral, Rat P REACH dossier information. Based on available data the classification criteria are not met.

# Reproductive toxicity - development

Neonatal toxicity - NOAEL: 50 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

# Specific target organ toxicity - single exposure

# STOT - single exposure

Based on available data the classification criteria are not met.

# Specific target organ toxicity - repeated exposure

# STOT - repeated exposure

NOAEL 200 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

# Aspiration hazard

Based on available data the classification criteria are not met.

# <u>butanone</u>

<u>Acute toxicity - oral</u> Acute toxicity oral (LD50 mg/kg)

# 2,054.0

Species

Rat

# Notes (oral LD50)

REACH dossier information. Based on available data the classification criteria are not met.

# ATE oral (mg/kg)

2,054.0

# Acute toxicity - dermal

# Notes (dermal LD50)

Based on available data the classification criteria are not met.

# Acute toxicity - inhalation

# Notes (inhalation LC50)

Based on available data the classification criteria are not met.

# Skin corrosion/irritation

# Animal data

Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.

# Serious eye damage/irritation

Causes serious eye irritation.

# **Respiratory sensitisation**

Based on available data the classification criteria are not met.

# Skin sensitisation

Buehler test - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

# Germ cell mutagenicity

# Genotoxicity - in vitro

Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

# Genotoxicity - in vivo

Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

# **Carcinogenicity**

Based on available data the classification criteria are not met.

# Reproductive toxicity

# Reproductive toxicity - fertility

Two-generation study - NOAEL 10000 mg/l, Oral, Rat F1 REACH dossier information. Based on available data the classification criteria are not met.

# Reproductive toxicity - development

Maternal toxicity: - NOAEC: 1002 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

# Specific target organ toxicity - single exposure

# STOT - single exposure

STOT SE 3 - H336 May cause drowsiness or dizziness.

# Specific target organ toxicity - repeated exposure

# STOT - repeated exposure

NOAEC 5041 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

# Aspiration hazard

Based on available data the classification criteria are not met.

# SECTION 12: Ecological Information

# 12.1. Toxicity

The product is not expected to be toxic to aquatic organisms. However, large or frequent spills may have hazardous effects on the environment.

# Ecological information on ingredients.

methyl ethyl ketone peroxide

# Acute toxicity - fish

LC50, 96 hours: 44.2 mg/l, Poecilia reticulata (Guppy)

# Acute toxicity - aquatic invertebrates

EC50, 48 hours: 26.7 mg/l, Daphnia magna

# Acute toxicity - aquatic plants

EC50, 72 hours: 3.2 mg/l, Pseudokirchneriella subcapitata

# <u>butanone</u>

# Acute toxicity - fish

LC50, 96 hours: 2993 mg/l, Pimephales promelas (Fat-head Minnow)

# Acute toxicity - aquatic invertebrates

EC50, 48 hours: 308 mg/l, Daphnia magna

# Acute toxicity - aquatic plants

EC50, 96 hours: 2029 mg/l, Selenastrum capricornutum

# 12.2. Persistence and degradability

# Persistence and degradability

The product is biodegradable.

# Ecological information on ingredients.

methyl ethyl ketone peroxide

# Persistence and degradability

The product is readily biodegradable.

# Biodegradation

Water - Degradation 87%: 28 days

# butanone

# Persistence and degradability

The product is readily biodegradable.

# Biodegradation

Water - Degradation 98%: 28 days

# 12.3. Bioaccumulative potential

No data available on bioaccumulation.

# Partition coefficient

Not available.

# Ecological information on ingredients.

# methyl ethyl ketone peroxide

No data available on bioaccumulation.

#### Partition coefficient

log Pow: < 0.3

#### <u>butanone</u>

No data available on bioaccumulation.

Partition coefficient

log Pow: 0.3

# 12.4. Mobility in soil

# Mobility

The product is partly miscible with water and may spread in the aquatic environment.

# Ecological information on ingredients.

# methyl ethyl ketone peroxide

# Mobility

The product is soluble in water.

#### <u>butanone</u>

# Mobility

The product is soluble in water.

# 12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

# Ecological information on ingredients.

# methyl ethyl ketone peroxide

This substance is not classified as PBT or vPvB according to current EU criteria.

# <u>butanone</u>

This substance is not classified as PBT or vPvB according to current EU criteria.

# 12.6. Other adverse effects

None known.

Ecological information on ingredients.

methyl ethyl ketone peroxide

None known.

#### **butanone**

None known.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

# Disposal methods

Do not empty into drains. Containers should be thoroughly emptied before disposal because of the risk of an explosion. Dispose of contents/container in accordance with national regulations.

# SECTION 14: Transport information

# 14.1. UN number

UN No. (ADR/RID)	3105
UN No. (IMDG)	3105

UN No. (ICAO)	3105	
UN No. (ADN)	3105	
14.2. UN proper shipping name	2	
Proper shipping name (ADR/RID)	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S))	
Proper shipping name (IMDG)	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S))	
Proper shipping name (ICAO)	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S))	
Proper shipping name (ADN)	ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S))	
14.3. Transport hazard class(es)		
ADR/RID class	5.2	
ADR/RID label	5.2	
IMDG class	5.2	
ICAO class/division	5.2	
ADN class	5.2	
Transport labels		
52		
14.4. Packing group		
14.5. Environmental hazards		

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmSF-J, S-RADR transport category2

Tunnel restriction code (D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant.

SECTION 15: Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

# National regulations

EH40/2005 Workplace exposure limits. The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

# EU legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

# 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

# SECTION 16: Other information

**Revision comments** Revised Classification.

Revision date	11/09/2014
Revision	3
Supersedes date	25/07/2014
Risk phrases in full	R7 May cause fire.
	R11 Highly flammable.
	R22 Harmful if swallowed.
	R34 Causes burns.
	R36 Irritating to eyes.
	R67 Vapours may cause drowsiness and
	dizziness.
Hazard statements in full	H225 Highly flammable liquid and vapour.
	H242 Heating may cause a fire.
	H302 Harmful if swallowed.
	H314 Causes severe skin burns and eye damage.
	H318 Causes serious eye damage.
	H319 Causes serious eye irritation.
	H336 May cause drowsiness or dizziness.

# Disclaimer

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