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Current version : 2.2.1, issued: 24.10.2017

Replaced version: 2.2.0, issued: 08.08.2017

Region: GB

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

1.1 Product identifier

Trade name

Armaflex Cleaner

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture designed for cleaning surfaces/substrates before applying Armaflex glues and cleaning tools (except Armaflex SF990 and Armaflex Ultima SF990)

Uses advised against No data available.

1.3 Details of the supplier of the safety data sheet

Address

Armacell GmbH Robert-Bosch-Straße 10 48153 Münster

 Telephone no.
 +49 (0) 251 - 7603-200

 Fax no.
 +49 (0) 251 - 7603-561

 e-mail
 info.de@armacell.com

Information provided by / telephone

Dr. Heribert Quante, Tel.: +49 (0) 251 - 7603-227 Advice on Safety Data Sheet heribert.guante@armacell.com

1.4 Emergency telephone number

For medical advice (in German and English): +49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP) Aquatic Chronic 3; H412 Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008: Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Hazard pictograms

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

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Current version : 2.2.1, issued: 24.10.2017

Replaced version: 2.2.0, issued: 08.08.2017

Region: GB

Hazard statements (EU) EUH066 Repeated exposure may cause skin dryness or cracking. Precautionary statement(s) P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P391 Collect spillage. P501 Dispose of contents/container to a facility in accordance with local and national regulations. Supplemental label elements Regulation (EC) No 648/2004 on detergents (Annex VII): 5-<15 % Aliphatic hydrocarbons

2.3 Other hazards

Vapours can form an explosive mixture with air. PBT assessment

No data available. vPvB assessment

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 **Mixtures**

Hazardous ingredients

No	Substance name			Additional information				
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concer	tration			%	
1	ethyl-acetate							
	141-78-6	EUH066	>=	70.00	- <	90.00	%-b.w.	
1	205-500-4	Eye Irrit. 2; H319						
	607-022-00-5	Flam. Liq. 2; H225						
1	01-2119475103-46	STOT SE 3; H336						
2	butanone							
	78-93-3	EUH066	>=	10.00	- <	25.00	%-b.w.	
	201-159-0	Eye Irrit. 2; H319						
	606-002-00-3	Flam. Liq. 2; H225						
	01-2119457290-43	STOT SE 3; H336						
3	Hydrocarbons, C6-C7	', isoalkanes, cyclics, <5% n-hexane						
	-	Aquatic Chronic 2; H411	>=	5.00	- <	10.00	%-b.w.	
	926-605-8	Asp. Tox. 1; H304						
	-	Flam. Liq. 2; H225						
	01-2119486291-36	STOT SE 3; H336						
Full [®]	Text for all H-phrases an	d EUH-phrases: pls. see section 16						

Full Text for all H-phrases and EUH-phrases: pls. see

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

When inhaled remove to fresh air and seek medical aid.

After skin contact

When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Seek medical advice immediately.

Current version : 2.2.1, issued: 24.10.2017

Region: GB

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Irritating to eyes, respiratory system and skin. breath difficulties; Coughing; Dazyness; Dizziness; Headache; Nausea; reddening of the skin; blistering

4.3 Indication of any immediate medical attention and special treatment needed No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray jet; Carbon dioxide; Dry chemical extinguisher; Foam Unsuitable extinguishing media High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO2)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Exclude sources of ignition and ventilate the area. Do not inhale vapours. Refer to protective measures listed in sections 7 and 8. For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. In case of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up

Pick up rest with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation at the work area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Advice on protection against fire and explosion

Keep away from sources of ignition - refrain from smoking. Take precautionary measures against static charges.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditionsKeep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight.Requirements for storage rooms and vesselsContainers which are opened must be carefully closed and kept upright to prevent leakage.Advice on storage assemblyDo not store together with: explosive substances; spontaneously combusting substances

7.3 Specific end use(s)

No data available.

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Current version : 2.2.1, issued: 24.10.2017

Region: GB

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.	
1	ethyl-acetate	141-78-6		205-500-4	
	List of approved workplace exposure limits (WELs) / EH40				
	Ethyl acetate				
	STÉL			400	ml/m³
	TWA			200	ml/m³
	2017/164/EU				
	Ethyl acetate				
	STEL	1468	mg/m³	400	ppm
	TWA	734	mg/m ³	200	ppm
2	butanone	78-93-3		201-159-0	
	List of approved workplace exposure limits (WELs) / EH40				
	Butan-2-one				
	STEL	899	mg/m³	300	ml/m³
	TWA	600	mg/m³	200	ml/m³
	Skin resorption / sensibilisation	Sk			
	2000/39/EC				
	Butanone				
	STEL	900	mg/m³	300	ppm
	TWA	600	mg/m³	200	ppm
3	n-hexane	110-54-3		203-777-6	
	List of approved workplace exposure limits (WELs) / EH40				
	n-Hexane				
	TWA	72	mg/m³	20	ml/m³
	2006/15/EC				
	n-Hexane				
	TWA	72	mg/m³	20	ppm
4	cyclohexane	110-82-7		203-806-2	
	List of approved workplace exposure limits (WELs) / EH40				
	Cyclohexane				
	STEL	1050	mg/m³	300	ml/m³
	TWA	350	mg/m³	100	ml/m³
	2006/15/EC				
	Cyclohexane				
	TWA	700	mg/m³	200	ppm

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name		CAS / EC n	0	
	Route of exposure	Exposure time	Effect	Value	
1	ethyl-acetate			141-78-6 205-500-4	
	dermal	Long term (chronic)	systemic	63	mg/kg/day
	inhalative	Short term (acut)	systemic	1468	mg/m³
	inhalative	Long term (chronic)	local	734	mg/m³
	inhalative	Short term (acut)	local	1468	mg/m³
	inhalative	Long term (chronic)	systemic	734	mg/m³
2	butanone			78-93-3 201-159-0	
	dermal	Long term (chronic)	systemic	1161.00	mg/kg/day
	inhalative	Long term (chronic)	systemic	600.00	mg/m ³
3	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane			- 926-605-8	
	dermal	Long term (chronic)	systemic	773	mg/kg/day
	inhalative	Long term (chronic)	systemic	2035	mg/m ³

Current version : 2.2.1, issued: 24.10.2017

Replaced version: 2.2.0, issued: 08.08.2017

Region: GB

DNEL value (consumer)

No	Substance name			CAS / EC no			
	Route of exposure	Exposure time	Effect	Value	•		
1	ethyl-acetate			141-78-6			
				205-500-4			
	oral	Long term (chronic)	systemic	4.5	mg/kg/day		
	dermal	Long term (chronic)	systemic	37	mg/kg/day		
	inhalative	Short term (acut)	systemic	734	mg/m ³		
	inhalative	Long term (chronic)	local	367	mg/m ³		
	inhalative	Short term (acut)	local	734	mg/m ³		
	inhalative	Long term (chronic)	systemic	367	mg/m³		
2	butanone			78-93-3			
				201-159-0			
	oral	Long term (chronic)	systemic	31.00	mg/kg/day		
	dermal	Long term (chronic)	systemic	412.00	mg/kg/day		
	inhalative	Long term (chronic)	systemic	106.00	mg/m³		
5	Hydrocarbons, C6-C7, is	soalkanes, cyclics, <5% n	i-hexane	-			
				926-605-8			
	oral	Long term (chronic)	systemic	699	mg/kg/day		
	dermal	Long term (chronic)	systemic	699	mg/kg/day		
	inhalative	Long term (chronic)	systemic	603	mg/m³		
	PNEC values						
١o	Substance name			CAS / EC no	0		
	ecological compartment	t Type	e	Value			
	ethyl-acetate	141-78-6					
				205-500-4			
	water	frest	n water	0.26	mg/l		
	water	mari	ine water	0.026	mg/l		
	water	Aqua	a intermittent	1.65	mg/l		
	water	frest	n water sediment	1.25	mg/kg		
	water	mari	ine water sediment	0.125	mg/kg		
	soil	-		0.24	mg/kg		
	sewage treatment plant	-		650	mg/l		
	secondary poisoning	-		200 78-93-3	mg/kg		
2	butanone						
				201-159-0			
	water	frest	n water	55.80	mg/l		
	water	mari	ine water	55.80	mg/l		
	water	Aqua	a intermittent	55.8	mg/l		
	water	frest	n water sediment	284.74	mg/kg		
	with reference to: dry weig	ght					
	water	mari	ine water sediment	284.7	mg/kg		
	with reference to: dry weight	tht		•			

water	marine water sediment	284.7	mg/kg
with reference to: dry weight			
soil	-	22.5	mg/kg
with reference to: dry weight			
sewage treatment plant	-	709	mg/l
secondary poisoning	-	1000	mg/kg
with reference to: food			

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of insufficient ventilation and during spray application respiratory protection necessary. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified. Respirator A-P2

Eye / face protection

Safety glasses with side protection shield (EN 166)

Trade name: Armaflex Cleaner

Current version : 2.2.1, issued: 24.10.2017

Replaced version: 2.2.0, issued: 08.08.2017

Region: GB

Hand protection

v r u	with the product . Before use, the prote resistance, product compatibility and a	ective glo ntistatic p protective	ves should properties) e gloves. F	l be teste . Adhere Protective	ed in any to the m e gloves :	cording to i.e. EN 374, in the event of risk of skin contact r case for its specific work-station suitability (i.e. mechan aanufacturer's instructions and information relating to the shall be replaced immediately when physically damage
	Appropriate Material					ish protection:
A	Appropriate Material	chlorop	rene			
	Appropriate Material	nitrile ru	ubber			
	Appropriate Material	PVA				
	Material thickness	min.			0.75	mm
E	Breakthrough time		30	-	120	min
-	Other Chemical-resistant work clothes.					
	Environmental exposure controls No data available.					

9.1 Information on basic physical and chemical properties

Form/Colour			
liquid			
clear			
Odour			
of solvents			
Odour threshold			
No data available			
pH value			
No data available			
Boiling point / boiling range		70	
Value	appr.	70	°C
Melting point / melting range			
No data available			
Decomposition point / decomposition range			
No data available			
Flash point			
Value	appr.	-20	°C
Auto-ignition temperature			
No data available			
Oxidising properties			
No data available			
Explosive properties			
No data available			
Flammability (solid, gas)			
No data available			
Lower flammability or explosive limits			
Value		1	% vol
Upper flammability or explosive limits			
Value		13	% vol
Vapour pressure			
Value	<	1100	hPa
Reference temperature		50	°C

Current version : 2.2.1, issued: 24.10.2017

Replaced version: 2.2.0, issued: 08.08.2017

Region: GB

Vanour donaity					
Vapour density No data available					
Evaporation rate					
No data available					
Relative density					
No data available					
Density					
Value	appr.	0.9	g/cm ³		
Reference temperature		20	٥°		
Solubility in water					
No data available					
Solubility(ies)					
No data available					
Partition coefficient: n-octanol/water					
No Substance name		CAS no.		EC no.	
1 ethyl-acetate		141-78-6		205-500-4	
log Pow		141100	6.8	200 000 4	
Reference temperature			25	°C	
Source	ECHA			-	
2 butanone		78-93-3		201-159-0	
log Pow			0.3		
Reference temperature			40	°C	
Method	OECD 117				
Source	ECHA				
Viscosity					
Value	<	21	cSt		
Reference temperature		40	°C		
2 Other information					

9

Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 **Chemical stability**

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions None, if handled according to order.

10.4 Conditions to avoid No data available.

10.5 Incompatible materials strong oxidizing agents

10.6 Hazardous decomposition products None, if handled according to intended use.

Current version : 2.2.1, issued: 24.10.2017

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Region: GB

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity				
No Substance name		CAS no.		EC no.
1 ethyl-acetate		141-78-6		205-500-4
LD50	>		5600	mg/kg bodyweight
Species	rat			
Source	ECHA			
2 butanone	-	78-93-3		201-159-0
LD50			3460	mg/kg bodyweight
Species	rat			
Method	OECD 423			
Source	ECHA			
Acute dermal toxicity				
No Substance name		CAS no.		EC no.
1 ethyl-acetate		141-78-6		205-500-4
LD50	>		20000	mg/kg bodyweight
Species	rabbit			
Source	ECHA			
Acute inhalational toxicity				
No Substance name		CAS no.		EC no.
1 Hydrocarbons, C6-C7, isoalkanes, cyclics,	<5% n-hexane	-		926-605-8
LC50	>		25.2	mg/l
Duration of exposure			4	h
State of aggregation	Vapour		•	
Species	rat			
Source	ECHA			
Skin corrosion/irritation				
No Substance name		CAS no.		EC no.
1 ethyl-acetate		141-78-6		205-500-4
Species	rabbit			
Method	OECD 404			
	FOLIA			
Source	ECHA			
Evaluation	low-irritant	ilabla data tha	alaasifiaation o	itaria ara natmat
Evaluation Evaluation/classification	low-irritant		classification ci	iteria are not met.
Evaluation Evaluation/classification 2 butanone	low-irritant	ilable data, the o 78-93-3		201-159-0
Evaluation Evaluation/classification 2 butanone Duration of exposure	low-irritant Based on ava		classification cr	
Evaluation Evaluation/classification 2 butanone Duration of exposure Species	low-irritant Based on ava			201-159-0
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method	low-irritant Based on ava rabbit OECD 404			201-159-0
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source	low-irritant Based on ava rabbit OECD 404 ECHA			201-159-0
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation	Iow-irritant Based on ava rabbit OECD 404 ECHA non-irritant	78-93-3		201-159-0 h
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics,	Iow-irritant Based on ava rabbit OECD 404 ECHA non-irritant < 5% n-hexane			201-159-0
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species	rabbit OECD 404 ECHA non-irritant <5% n-hexane rabbit	78-93-3		201-159-0 h
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics,	rabbit OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404	78-93-3		201-159-0 h
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method	rabbit OECD 404 ECHA non-irritant <5% n-hexane rabbit	78-93-3		201-159-0 h
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation	Iow-irritant Based on ava OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA	78-93-3		201-159-0 h
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation	Iow-irritant Based on ava OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA	-		201-159-0 h 926-605-8
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Source Evaluation Source Evaluation	Iow-irritant Based on ava OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA	78-93-3 -		201-159-0 h 926-605-8 EC no.
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Source Evaluation Source Evaluation Source Evaluation Source Evaluation Source Evaluation	Iow-irritant Based on available OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant	-		201-159-0 h 926-605-8
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Source Evaluation Source Evaluation Serious Substance name 1 ethyl-acetate Species	Iow-irritant Based on ava rabbit OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant	78-93-3 -		201-159-0 h 926-605-8 EC no.
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Serious eye damage/irritation No Substance name 1 ethyl-acetate Species Method	Iow-irritant Based on ava OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant	78-93-3 -		201-159-0 h 926-605-8 EC no.
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Serious eye damage/irritation No Substance name 1 ethyl-acetate Species Method Source	Iow-irritant Based on ava OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant OECD 404 ECHA irritant	78-93-3 -		201-159-0 h 926-605-8 EC no.
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Serious eye damage/irritation No Substance name 1 ethyl-acetate Species Method Source Evaluation	Iow-irritant Based on ava OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant	- - CAS no. 141-78-6		201-159-0 h 926-605-8 EC no. 205-500-4
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Serious eye damage/irritation No Substance name 1 ethyl-acetate Species Method Source Evaluation	Iow-irritant Based on ava rabbit OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant CECD 404 ECHA irritant	78-93-3 -		201-159-0 h 926-605-8 EC no.
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Source Evaluation Source Evaluation Serious eye damage/irritation No Substance name 1 ethyl-acetate Species Method Source Evaluation Source Evaluation Evaluation 2 butanone Species Species	Iow-irritant Based on ava rabbit OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant CECD 404 ECHA irritant CECD 405 ECHA Iow-irritant	- - CAS no. 141-78-6		201-159-0 h 926-605-8 EC no. 205-500-4
Evaluation Evaluation/classification 2 butanone Duration of exposure Species Method Source Evaluation 3 Hydrocarbons, C6-C7, isoalkanes, cyclics, Species Method Source Evaluation Serious eye damage/irritation No Substance name 1 ethyl-acetate Species Method Source Evaluation	Iow-irritant Based on ava rabbit OECD 404 ECHA non-irritant <5% n-hexane rabbit OECD 404 ECHA irritant CECD 404 ECHA irritant	- - CAS no. 141-78-6		201-159-0 h 926-605-8 EC no. 205-500-4

Current version : 2.2.1, issued: 24.10.2017

Replaced version: 2.2.0, issued: 08.08.2017

Region: GB

Respiratory or skin sensitisation				
No Substance name		CAS no.		EC no.
1 ethyl-acetate		141-78-6		205-500-4
Route of exposure	Skin			
Species	guinea pig			
Method	OECD 406			
Source	ECHA			
Evaluation	non-sensitizin	a		
2 butanone		78-93-3		201-159-0
Route of exposure	Skin			
Species	guinea pig			
Method	OECD 406			
Source	ECHA			
Evaluation	non-sensitizin	a		
	•	J		
Germ cell mutagenicity		040		FO
No Substance name		CAS no.		EC no.
1 butanone	1 = 0.14	78-93-3		201-159-0
Source	ECHA			
Evaluation/classification		lable data, the cla	ssification crite	
2 Hydrocarbons, C6-C7, isoalkanes, cyclics, <5		-		926-605-8
Route of exposure	inhalational			
Type of examination		aberration test		
Species	rat			
Method	OECD 475			
Source	ECHA			
Reproduction toxicity				
No Substance name		CAS no.		EC no.
1 Hydrocarbons, C6-C7, isoalkanes, cyclics, <5	% n-hexane	-		926-605-8
Route of exposure	inhalational			
NOAEC			9000	ppm
Type of examination	2 generation s	tudv	0000	ppiii
Species	rat	luuy		
Method	OECD 416			
Source	ECHA			
Carcinogenicity				
No Substance name	<u> </u>	CAS no.		EC no.
1 Hydrocarbons, C6-C7, isoalkanes, cyclics, <5		•		926-605-8
Route of exposure	inhalational			
NOAEC			3000	ppm
Species	rat			
Method	OECD 451			
Source	ECHA			
STOT - single exposure				
No data available				
STOT - repeated exposure No Substance name		CAC ===		EC no.
	0/ n hovens	CAS no.		926-605-8
1 Hydrocarbons, C6-C7, isoalkanes, cyclics, <5		-		920-000-8
Route of exposure	inhalational		4.4000	
NOAEC			14000	mg/m³
Duration of exposure	rot		8	h
Species Source	rat ECHA			
Source				
Aspiration hazard				
No data available				
	<i>(</i> , , , , , , , , , , , , , , , , , , ,			
Delayed and immediate effects as well as chronic e				and the second state
Inhalation of the vapours causes irritation of the respira	atory tract and m	lucous membrane	, headaches, r	nausea, giddiners, vomiting.

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Region: GB

SECTION 12: Ecological information

12.1 Toxicity

	city to fish (acute)				
No	Substance name	CAS no.		EC no.	
1	ethyl-acetate	141-78-6		205-500-4	
LC50			230	mg/l	_
	tion of exposure		96	h	
Spec	ies	Pimephales promelas			
Sour		ECHA			
2	butanone	78-93-3		201-159-0	
LC50			2993	mg/l	
Dura	tion of exposure		96	h	
Spec		Pimephales promelas			
Meth		OECD 203			
Sour		ECHA			
3	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5	% n-hexane -		926-605-8	
LL50			11.4	mg/l	
	tion of exposure		96	h	
Spec		Oncorhynchus mykiss			
Meth		OECD 203			
Sour	ce	ECHA			
Toxid	city to fish (chronic)				
	ata available				
	city to Daphnia (acute)				
No	Substance name	CAS no.		EC no.	
1	ethyl-acetate	141-78-6		205-500-4	
EC50			1350	mg/l	
	tion of exposure		48	h	
Spec		Daphnia magna			
Sour		ECHA			
2	butanone	78-93-3		201-159-0	
				"	
EC50			308	mg/l	
Dura	tion of exposure	Decksie	308 48	mg/l h	
Dura Spec	tion of exposure ies	Daphnia magna			
Dura Spec Meth	tion of exposure ies od	OECD 202			
Dura Spec Meth Sour	tion of exposure ies od ce	OECD 202 ECHA		h	
Dura Spec Meth Source 3	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5	OECD 202 ECHA	48	h 926-605-8	
Dura Spec Meth Sour 3 EL50	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5	OECD 202 ECHA	48	h 926-605-8 mg/l	
Dura Spec Meth Source 3 EL50 Dura	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 i tion of exposure	OECD 202 ECHA % n-hexane -	48	h 926-605-8	
Dura Spec Meth Source 3 EL50 Dura Spec	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies	OECD 202 ECHA % n-hexane - Daphnia magna	48	h 926-605-8 mg/l	
Dura Spec Meth Source 3 EL50 Dura Spec Meth	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202	48	h 926-605-8 mg/l	
Dura Spec Meth Source 3 EL50 Dura Spec	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od	OECD 202 ECHA % n-hexane - Daphnia magna	48	h 926-605-8 mg/l	
Dura Spec Meth Sourd 3 EL50 Dura Spec Meth Sourd	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic)	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202	48	h 926-605-8 mg/l	
Dura Spec Meth Sourd 3 EL50 Dura Spec Meth Sourd	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202	48	h 926-605-8 mg/l	
Dura Spec Meth Source EL50 Dura Spec Meth Source Toxic No da	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202	48	h 926-605-8 mg/l	
Dura Spec Meth Soura BEL50 Dura Spec Meth Soura No da	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute)	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA	48	h 926-605-8 mg/l h	
Dura Spec Meth Soura Spec Meth Soura No da Toxia No da	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no.	48	h 926-605-8 mg/l h EC no.	
Dura Spec Meth Soura Spec Meth Soura No da Toxia No da	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA	48 3 48	h 926-605-8 mg/l h EC no. 201-159-0	
Dura Spec Meth Soura Spec Meth Soura No da Toxia No da Toxia No da	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no.	48 3 48 	h 926-605-8 mg/l h EC no. 201-159-0 mg/l	
Dura Spec Meth Soura Spec Meth Soura No da Toxia No da ECS0 Dura	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone tion of exposure	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3	48 3 48	h 926-605-8 mg/l h EC no. 201-159-0	
Dura Spec Meth Soura Spec Meth Soura No da Toxia No da EC50 Dura Spec	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone) tion of exposure ies	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata	48 3 48 	h 926-605-8 mg/l h EC no. 201-159-0 mg/l	
Dura Spec Meth Sourd Spec Meth Sourd No di Toxid No di ECS0 Dura Spec No di Sourd No di	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone) tion of exposure ies od	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata OECD 201	48 3 48 	h 926-605-8 mg/l h EC no. 201-159-0 mg/l	
Dura Spec Meth Sourd Spec Meth Sourd Toxid Toxid Toxid Toxid Toxid Toxid Spec Meth Sourd Spec No da	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone butanone o tion of exposure ies od ce	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata OECD 201 ECHA	48 3 48 	h 926-605-8 mg/l h EC no. 201-159-0 mg/l h	
Dura Spec Meth Sourd Spec Meth Sourd Toxid No da Toxid No da Toxid No da Toxid No da Toxid No da Toxid Spec No da Toxid X Spec No da X Spec No da X Spec X Spec No da X Spec No da X Spec No da X Spec X Spec No da X Spec X Spec No da X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec X Spec Spec Spec Spec Spec Spec Spec Spec	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone butanone butanone C Hydrocarbons, C6-C7, isoalkanes, cyclics, <5	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata OECD 201 ECHA	48 3 48 2029 96	h 926-605-8 mg/l h EC no. 201-159-0 mg/l h	
Dura Spec Meth Soura Spec Meth Soura Spec No da Toxia No da Toxia No da ELSO Dura Spec Dura Spec Dura ELSO Dura Spec Dura Spec No da Spec No da Spec Spec No da Spec No da Spec No da Spec Spec No da Spec Spec Spec No da Spec Spec Spec Spec Spec Spec Spec Spec	tion of exposure ies od Ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce City to Daphnia (chronic) ata available City to algae (acute) Substance name butanone) tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata OECD 201 ECHA	48 3 48 2029 96 1030	h 926-605-8 mg/l h EC no. 201-159-0 mg/l h	
Dura Spec Meth Sourr 3 EL50 Dura Spec No di Toxid No di EC50 Dura Spec Meth Sourr 2 EL50 Dura	tion of exposure ies od Ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od Ce City to Daphnia (chronic) ata available City to algae (acute) Substance name butanone) tion of exposure ies od Ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata OECD 201 ECHA % n-hexane -	48 3 48 2029 96	h 926-605-8 mg/l h EC no. 201-159-0 mg/l h	
Dura Spec Meth Souri 3 EL50 Dura Spec Meth Souri No di Toxid No di EC50 Dura Spec Meth Souri 2 EL50 Dura Spec Spec Spec Dura Spec Spec Spec Spec Spec Dura Spec Spec Spec Spec Spec Spec Spec Spec	tion of exposure ies od Ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od Ce City to Daphnia (chronic) ata available City to algae (acute) Substance name butanone Dition of exposure ies od Ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata OECD 201 ECHA % n-hexane - Raphidocelis subcapitata	48 3 48 2029 96 1030	h 926-605-8 mg/l h EC no. 201-159-0 mg/l h	
Dura Spec Meth Soura Spec Meth Soura No da Toxid No da Toxid No da Toxid No da EC50 Dura Spec Meth Soura Spec Dura Spec Dura Spec Dura Spec No da EL50 Dura Spec No da EL50 Dura Spec Spec Spec Spec Spec Spec Spec Spec	tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od ce city to Daphnia (chronic) ata available city to algae (acute) Substance name butanone butanone o tion of exposure ies od ce Hydrocarbons, C6-C7, isoalkanes, cyclics, <5 tion of exposure ies od	OECD 202 ECHA % n-hexane - Daphnia magna OECD 202 ECHA CAS no. 78-93-3 Pseudokirchneriella subcapitata OECD 201 ECHA % n-hexane -	48 3 48 2029 96 1030	h 926-605-8 mg/l h EC no. 201-159-0 mg/l h	

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Region: GB

Toxicity to algae (chronic)	
No data available	
Bacteria toxicity	
No data available	

12.2 Persistence and degradability

Biodegradability					
No	Substance name	CAS no.		EC no.	
1	ethyl-acetate	141-78-6		205-500-4	
Sou	rce	ECHA			
Eval	uation	readily biodegradable			
2	butanone	78-93-3		201-159-0	
Туре		aerobic biodegradation			
Valu	e		98	%	
Dura	ation		28	day(s)	
Method		OECD 301 D			
Source		ECHA			
Evaluation		readily biodegradable			
3	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5	% n-hexane -		926-605-8	
Туре		aerobic biodegradation			
Valu	e		98	%	
Duration			28	day(s)	
Method		OECD 301 F			
Source		ECHA			
Evaluation		readily degradable			

12.3 Bioaccumulative potential

Parti	Partition coefficient: n-octanol/water				
No	Substance name	C	AS no.	EC no.	
1	ethyl-acetate	1	41-78-6	205-500-4	
log F	og Pow 6.8				
Refe	rence temperature		25	°C	
Source		ECHA			
2	butanone	7	8-93-3	201-159-0	
log Pow			0.3		
Reference temperature			40	°C	
Method OE		OECD 117			
Sour	Source ECHA				

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment		
PBT assessment	No data available.	
vPvB assessment	No data available.	

12.6 Other adverse effects

No data available.

12.7 Other information

Other information

Do not discharge product unmonitored into the environment. Do not discharge into the drains or waters and do not store on public depositories.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

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unen	Version : 2.2.1, issued: 24.10.2017				
SECT	FION 14: Transport informat	ion			
14.1	Transport ADR/RID/ADN Class Classification code Packing group Hazard identification no. UN number Technical name Danger releasing substance Special Provision 640 Tunnel restriction code	3 F1 II 33 UN1993 FLAMMABLE LIQUID, N.O.S. ethyl-acetate butanone 640D D/E			
14.2	Label Transport IMDG	3			
17.2	Class Packing group UN number Proper shipping name Danger releasing substance EmS Label	3 II UN1993 FLAMMABLE LIQUID, N.O.S. ethyl-acetate butanone F-E+S-E 3			
14.3	Transport ICAO-TI / IATA				
	Class Packing group UN number Proper shipping name Danger releasing substance	3 II UN1993 Flammable liquid, n.o.s. ethyl-acetate			
	Label	butanone 3			
4.4	Other information No data available.				
4.5	5 Environmental hazards Information on environmental hazards, if relevant, please see 14.1 - 14.3.				
4.6	6 Special precautions for user No data available.				
4.7	7 Transport in bulk according to Annex II of Marpol and the IBC Code Not relevant				
SECT	FION 15: Regulatory information	ation			
5.1		ntal regulations/legislation specific for the substance or mixture			
	<u>EU regulations</u>				
Po	equiption (EC) No 1007/2006 (PEAC	H) Append VIV (List of substances subject to sutherization)			
Ac	Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation) According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.				
	REACH candidate list of substances of very high concern (SVHC) for authorisation				
CO	According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.				
AN	D USE OF CERTAIN DANGEROUS	Steps Steps <th< td=""></th<>			
Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances This product is subject to Part I of Annex I, risk category: P5b					
	is product is subject to Fart i of Allie				

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents (VOC **Directive**)

VOC content

870

g/l

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15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Further information

Authors responsible for the compilation of the material safety data sheet: UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de. The information is based on our current knowledge however it does not represent a guarantee of product properties nor does it create

any legal obligation. Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)H304May be fatal if swallowed and enters airways.

Toxic to aquatic life with long lasting effects.

Alterations/supplements:

H411

Alterations to the previous edition are marked in the left-hand margin.

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