Trade name: Armaflex 750

Current version : 1.1.0, issued: 07.12.2021 **Replaced version:** 1.0.0, issued: 24.11.2021 **Region:** GB

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

1.1 Product identifier

Trade name

Armaflex 750

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

Relevant identified uses of the substance or mixture
Adhesives
For industrial and professional use only

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.quante@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 2; H411
Eye Irrit. 2; H319
Flam. Liq. 2; H225
Skin Irrit. 2; H315
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

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

Hazard pictograms


GHS02


GHS07


GHS09

Signal word
Danger

Hazardous component(s) to be indicated on label:
acetone
cyclohexane
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
butanone

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P370+P378	In case of fire: Use water spray, extinguishing powder, foam or CO2 to extinguish.

2.3 Other hazards

PBT assessment
The product is not considered to be a PBT.

vPvB assessment
The product is not considered to be a vPvB.

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)	Concentration	%
1	**acetone**			
	67-64-1 200-662-2 606-001-00-8 01-2119471330-49	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	20.00 - 25.00	wt%
2	**cyclohexane**			
	110-82-7 203-806-2 601-017-00-1 01-2119463273-41	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Asp. Tox. 1; H304 Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336	10.00 - 20.00	wt%
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**			
	- 927-510-4 - 01-2119475515-33	Aquatic Chronic 2; H411 Asp. Tox. 1; H304 Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336	10.00 - 20.00	wt%
4	**butanone**			
	78-93-3 201-159-0 606-002-00-3 01-2119457290-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	1.00 - 10.00	wt%
5	**ethyl-acetate**		**pls. refer to footnote (1)**	
	141-78-6 205-500-4 607-022-00-5 01-2119475103-46	EUH066 Flam. Liq. 2; H225 STOT SE 3; H336 Eye Irrit. 2; H319	1.00 - 10.00	wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16
(1) Aberrant from/in addition to the classification set out in Annex VI, this substance is classified according to European Regulation (EC) No 1272/2008 (CLP), Article 4 (3), paragraph 2.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation
Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air. If unconscious place in recovery position and seek medical advice.

After skin contact
When in contact with the skin, clean with soap and water. Do NOT use solvents or thinners. Get medical attention if pain still 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). Get medical attention if pain still persists.

After ingestion
Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
Eye irritation; Skin irritation; Drowsiness

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
Dry chemical extinguisher; Carbon dioxide; Alcohol-resistant foam; Water spray jet

Unsuitable extinguishing media
High power water jet

5.2 Special hazards arising from the substance or mixture

Vapours can form a highly flammable mixture with air. In the event of fire, the following can be released: Carbon oxides (COx)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Containers close to fire should be transferred to a safe place. Cool closed containers exposed to fire with water. Run-off water from fire fighting must not be discharged into drains or enter surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Refer to protective measures listed in sections 7 and 8. Keep away from ignition sources.

For emergency responders
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

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling
Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances.

General protective and hygiene measures
Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion
Keep away from ignition sources and provide for good ventilation. Vapours can form an explosive mixture with air. Isolate from sources of heat, sparks and open flame. Take precautionary measures against electrostatic loading (earthing necessary during loading operations). Use explosion-proof equipment/fittings and non-sparking tools. The heavy vapours can overcome a considerable distance upto the source of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Keep container tightly closed and dry in a cool, well-ventilated place.

Recommended storage temperature

Value	5	-	25	°C

Storage stability

Value	18	months
Comments	In sealed original container.	

Requirements for storage rooms and vessels
Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products
Substances to be avoided, see section 10.

7.3 Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.	
1	**acetone**	**67-64-1**		**200-662-2**	
	2000/39/EC				
	Acetone				
	WEL long-term (8-hr TWA reference period)	1210	mg/m³	500	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	Acetone				
	WEL short-term (15 min reference period)	3620	mg/m³	1500	ppm
	WEL long-term (8-hr TWA reference period)	1210	mg/m³	500	ppm
2	**cyclohexane**	**110-82-7**		**203-806-2**	
	2006/15/EC				
	Cyclohexane				
	WEL long-term (8-hr TWA reference period)	700	mg/m³	200	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	Cyclohexane				
	WEL short-term (15 min reference period)	1050	mg/m³	300	ppm
	WEL long-term (8-hr TWA reference period)	350	mg/m³	100	ppm
3	**butanone**	**78-93-3**		**201-159-0**	
	2000/39/EC				
	Butanone				
	WEL short-term (15 min reference period)	900	mg/m³	300	ppm
	WEL long-term (8-hr TWA reference period)	600	mg/m³	200	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	Butan-2-one				
	WEL short-term (15 min reference period)	899	mg/m³	300	ppm
	WEL long-term (8-hr TWA reference period)	600	mg/m³	200	ppm
	Comments	Sk, BMGV			
4	**ethyl-acetate**	**141-78-6**		**205-500-4**	
	2017/164/EU				
	Ethyl acetate				
	WEL short-term (15 min reference period)	1468	mg/m³	400	ppm
	WEL long-term (8-hr TWA reference period)	734	mg/m³	200	ppm
	List of approved workplace exposure limits (WELs) / EH40				
	Ethyl acetate				
	WEL short-term (15 min reference period)			400	ppm
	WEL long-term (8-hr TWA reference period)			200	ppm

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	**acetone**			**67-64-1** **200-662-2**	
	dermal	Long term (chronic)	systemic	186	mg/kg/day
	inhalative	Short term (acut)	local	2420	mg/m³
	inhalative	Short term (acut)	systemic	1210	mg/m³
2	**cyclohexane**			**110-82-7**	

				203-806-2	
	inhalative	Short term (acut)	systemic	700	mg/m³
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**			**- 927-510-4**	
	dermal	Long term (chronic)	systemic	300	mg/kg/day
	inhalative	Long term (chronic)	systemic	2085	mg/m³
4	**butanone**			**78-93-3 201-159-0**	
	dermal	Long term (chronic)	systemic	1161	mg/kg/day
	inhalative	Long term (chronic)	systemic	600.00	mg/m³
5	**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

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	**Exposure time**	**Effect**	**Value**	
1	**acetone**			**67-64-1 200-662-2**	
	oral	Long term (chronic)	systemic	62	mg/kg/day
	dermal	Long term (chronic)	systemic	62	mg/kg/day
	inhalative	Long term (chronic)	systemic	200	mg/m³
2	**cyclohexane**			**110-82-7 203-806-2**	
	dermal	Long term (chronic)	systemic	2016	mg/kg
	inhalative	Short term (acut)	local	700	mg/m³
	inhalative	Long term (chronic)	systemic	700	mg/m³
	inhalative	Long term (chronic)	local	700	mg/m³
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**			**- 927-510-4**	
	oral	Long term (chronic)	systemic	149	mg/kg/day
	dermal	Long term (chronic)	systemic	149	mg/kg/day
	inhalative	Long term (chronic)	systemic	447	mg/m³
4	**butanone**			**78-93-3 201-159-0**	
	oral	Long term (chronic)	systemic	31	mg/kg/day
	dermal	Long term (chronic)	systemic	412	mg/kg/day
	inhalative	Long term (chronic)	systemic	106	mg/m³
5	**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/m³
	inhalative	Long term (chronic)	local	367	mg/m³
	inhalative	Short term (acut)	local	734	mg/m³
	inhalative	Long term (chronic)	systemic	367	mg/m³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	**Type**	**Value**	
1	**acetone**		**67-64-1 200-662-2**	
	water	fresh water	10.6	mg/L
	water	Aqua intermittent	21	mg/L
	water	marine water	1.06	mg/L
	water	fresh water sediment	30.4	mg/kg
	water	marine water sediment	3.04	mg/kg
	soil	-	29.5	mg/kg
	sewage treatment plant	-	100	mg/L
2	**cyclohexane**		**110-82-7 203-806-2**	
	water	fresh water	0.207	mg/L
	water	marine water	0.207	mg/L
	water	fresh water sediment	3.267	mg/kg
	water	marine water sediment	3.267	mg/kg

	soil	-	2.99	mg/kg
3	**butanone**		**78-93-3** **201-159-0**	
	water	fresh water	55.8	mg/L
	water	marine water	55.8	mg/L
	water	Aqua intermittent	55.8	mg/L
	water	fresh water sediment	284.74	mg/kg
	with reference to: dry weight			
	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			
4	**ethyl-acetate**		**141-78-6** **205-500-4**	
	water	fresh water	0.24	mg/L
	water	Aqua intermittent	1.65	mg/L
	water	marine water	0.024	mg/L
	water	fresh water sediment	1.15	mg/kg
	water	marine water sediment	0.115	mg/kg
	soil	-	0.148	mg/kg
	sewage treatment plant	-	650	mg/L
	secondary poisoning	-	200	mg/kg food

8.2 Exposure controls

Appropriate engineering controls
Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn.

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 aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection
Safety glasses with side protection shield (EN 166)

Hand protection
Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other
Chemical-resistant work clothes. Protective shoes.

Environmental exposure controls
No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation
liquid

Form/Colour
amber

Odour
of organic solvents

pH value
No data available

Boiling point / boiling range		
Value	56	°C
Source	supplier	

Melting point/freezing point
No data available

Decomposition temperature
No data available

Flash point		
Value	-12	°C
Source	supplier	

Ignition temperature
No data available

Flammability
No data available

Lower explosion limit
No data available

Upper explosion limit
No data available

Vapour pressure		
Value	153	kPa

Relative vapour density
No data available

Relative density			
Value	0.85	-	0.89
Source	supplier		

Density
No data available

Solubility
No data available

Partition coefficient n-octanol/water (log value)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**acetone**	**67-64-1**		**200-662-2**
log Pow			-0.23	
Method		QSAR		
Source		ECHA		
2	**butanone**	**78-93-3**		**201-159-0**
log Pow			0.3	
Reference temperature			40	°C
Method		OECD 117		
Source		ECHA		
3	**ethyl-acetate**	**141-78-6**		**205-500-4**
log Pow			0.68	
Reference temperature			25	°C
with reference to		pH 7		
Method		OPPTS 830.7560		
Source		ECHA		

Viscosity
No data available

Particle characteristics
No data available

9.2 Other information

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

At high temperatures can occur pyrolysis and dehydrogenation

10.4 Conditions to avoid

Heat, naked flames and other ignition sources. High temperatures.

10.5 Incompatible materials
Acids; Bases; Oxidizing agents

10.6 Hazardous decomposition products
None if stored, handled and transported properly. In case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity					
No	**Substance name**	**CAS no.**			**EC no.**
1	**acetone**	**67-64-1**			**200-662-2**
LD50			5800		mg/kg bodyweight
Species		rat			
Source		ECHA			
Evaluation/classification		Based on available data, the classification criteria are not met.			
2	**cyclohexane**	**110-82-7**			**203-806-2**
LD50		>	5000		mg/kg bodyweight
Species		rat			
Method		OECD 401			
Source		ECHA			
Evaluation/classification		Based on available data, the classification criteria are not met.			
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**			**927-510-4**
LD50		>	5840		mg/kg bodyweight
Species		rat			
Source		ECHA			
4	**butanone**	**78-93-3**			**201-159-0**
LD50			2054		mg/kg bodyweight
Species		rat			
Method		OECD 423			
Source		ECHA / Read across			

Acute dermal toxicity					
No	**Substance name**	**CAS no.**			**EC no.**
1	**acetone**	**67-64-1**			**200-662-2**
LD50		>	15800		mg/kg bodyweight
Species		rabbit			
Source		ECHA			
Evaluation/classification		Based on available data, the classification criteria are not met.			
2	**cyclohexane**	**110-82-7**			**203-806-2**
LD50		>	2000		mg/kg bodyweight
Species		rabbit			
Method		OECD 402			
Source		ECHA			
Evaluation/classification		Based on available data, the classification criteria are not met.			
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**			**927-510-4**
LD50		> 2800	-	3100	mg/kg bodyweight
Species		rat			
Source		ECHA			
4	**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	**acetone**	**67-64-1**			**200-662-2**
LC50			76		mg/l
Duration of exposure			4		h
State of aggregation		Vapour			
Species		rat			
Source		ECHA			
Evaluation/classification		Based on available data, the classification criteria are not met.			
2	**cyclohexane**	**110-82-7**			**203-806-2**
LC50		>	19.07		mg/l
Duration of exposure			4		h
State of aggregation		Dust/mist			
Species		rat			
Source		ECHA			

Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**	**927-510-4**
LC50	>	23.3	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		

Skin corrosion/irritation			
No	**Substance name**	**CAS no.**	**EC no.**
1	**acetone**	**67-64-1**	**200-662-2**
Species	guinea pig		
Source	ECHA		
Evaluation	non-irritant		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**	**927-510-4**
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	irritant		
3	**butanone**	**78-93-3**	**201-159-0**
Duration of exposure		4	h
Species	rabbit		
Method	OECD 404		
Source	ECHA / Read across		
Evaluation	non-irritant		

Serious eye damage/irritation			
No	**Substance name**	**CAS no.**	**EC no.**
1	**acetone**	**67-64-1**	**200-662-2**
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		
Evaluation/classification	Based on available data, the classification criteria are met.		
2	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**	**927-510-4**
Species	rabbit		
Source	ECHA		
Evaluation	non-irritant		
3	**butanone**	**78-93-3**	**201-159-0**
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		
4	**ethyl-acetate**	**141-78-6**	**205-500-4**
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	non-irritant		

Respiratory or skin sensitisation			
No	**Substance name**	**CAS no.**	**EC no.**
1	**acetone**	**67-64-1**	**200-662-2**
Route of exposure	Skin		
Species	guinea pig		
Source	ECHA		
Evaluation	non-sensitizing		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**	**927-510-4**
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		
3	**butanone**	**78-93-3**	**201-159-0**
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		

4	ethyl-acetate	141-78-6	205-500-4
Route of exposure		Skin	
Species		guinea pig	
Method		OECD 406	
Source		ECHA	
Evaluation		non-sensitizing	

Germ cell mutagenicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**acetone**	**67-64-1**	**200-662-2**
Type of examination		in vitro gene mutation study in bacteria	
Species		Salmonella typhimurium	
Method		OECD 471	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		In vitro Mammalian Chromosomal Aberration Test	
Species		Chinese hamster Ovary (CHO)	
Method		OECD 473	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		in vitro gene mutation study in mammalian cells	
Species		Mouse lymphoma cells	
Method		OECD 476	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
2	**butanone**	**78-93-3**	**201-159-0**
Type of examination		in vitro gene mutation study in bacteria	
Species		Salmonella typhimurium	
Method		OECD 471	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		In vitro Mammalian Chromosomal Aberration Test	
Species		rat	
Method		OECD 473	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		In vitro mammalian cell gene mutation test	
Species		Mouse lymphoma cells	
Method		OECD 476	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		In vivo mammalian somatic cell study: cytogenicity / erythrocyte micronucleus	
Species		mouse	
Method		OECD 474	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
3	**ethyl-acetate**	**141-78-6**	**205-500-4**
Type of examination		in vitro gene mutation study in bacteria	
Species		Salmonella typhimurium	
Method		OECD 471	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Type of examination		In vitro mammalian cytogenicity	
Species		Chinese hamster Ovary (CHO)	
Method		OECD 473	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Route of exposure		oral	
Type of examination		In vivo mammalian somatic cell study: cytogenicity / erythrocyte micronucleus	
Species		Chinese hamster V79 cells	
Method		OECD 474	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Reproduction toxicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**acetone**	**67-64-1**	**200-662-2**
Route of exposure		inhalational	
NOAEC		2200	ppm
Type of examination		Prenatal Developmental Toxicity Study	
Species		rat	

Method	OECD 414
Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.

2	**butanone**	**78-93-3**	**201-159-0**
Route of exposure	inhalational		
Type of examination	Prenatal Developmental Toxicity Study		
Species	rat		
Method	OECD 414		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Carcinogenicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**acetone**	**67-64-1**	**200-662-2**
Route of exposure	dermal		
Type of examination	Toxicity study		
Species	mouse		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**butanone**	**78-93-3**	**201-159-0**
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**ethyl-acetate**	**141-78-6**	**205-500-4**
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

STOT - single exposure
No data available

STOT - repeated exposure			
No	**Substance name**	**CAS no.**	**EC no.**
1	**acetone**	**67-64-1**	**200-662-2**
Route of exposure	oral		
NOAEL	10000 ppm		
Species	rat		
Method	OECD 408		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	inhalational		
NOAEC	19000 ppm		
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**butanone**	**78-93-3**	**201-159-0**
Route of exposure	inhalational		
Species	rat		
Method	OECD 413		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**ethyl-acetate**	**141-78-6**	**205-500-4**
Route of exposure	oral		
Species	rat		
Method	EPA OTS 795.2600		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	inhalational		
Species	rat		
Method	EPA OTS 798.2450		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Aspiration hazard
No data available

11.2 Information on other hazards

Endocrine disrupting properties
No data available.

Other information
No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)					
No	**Substance name**	**CAS no.**		**EC no.**	
1	**acetone**	**67-64-1**		**200-662-2**	
LC50			5540		mg/l
Duration of exposure			96		h
Species		Oncorhynchus mykiss			
Source		ECHA			
Evaluation/classification		Based on available data, the classification criteria are not met.			
2	**cyclohexane**	**110-82-7**		**203-806-2**	
LC50			4.53		mg/l
Duration of exposure			96		h
Species		Pimephales promelas			
Method		OECD 203			
Source		ECHA			
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**		**927-510-4**	
LL50		>	13.4		mg/l
Duration of exposure			96		h
Species		Oncorhynchus mykiss			
Method		OECD 203			
Source		ECHA			
4	**butanone**	**78-93-3**		**201-159-0**	
LC50			2993		mg/l
Duration of exposure			96		h
Species		Pimephales promelas			
Method		OECD 203			
Source		ECHA			
5	**ethyl-acetate**	**141-78-6**		**205-500-4**	
LC50			220		mg/l
Duration of exposure			96		h
Species		Pimephales promelas			
Source		ECHA			

Toxicity to fish (chronic)
No data available

Toxicity to Daphnia (acute)					
No	**Substance name**	**CAS no.**		**EC no.**	
1	**acetone**	**67-64-1**		**200-662-2**	
EC50			8800		mg/l
Duration of exposure			48		h
Species		Daphnia pulex			
Source		ECHA			
Evaluation/classification		Based on available data, the classification criteria are not met.			
2	**cyclohexane**	**110-82-7**		**203-806-2**	
EC50			0.9		mg/l
Duration of exposure			48		h
Species		Daphnia magna			
Method		OECD 202			
Source		ECHA			
3	**Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics**	**-**		**927-510-4**	
EC50			3		mg/l
Duration of exposure			48		h
Species		Daphnia magna			
Method		OECD 202			
Source		ECHA			
4	**butanone**	**78-93-3**		**201-159-0**	
EC50			308		mg/l
Duration of exposure			48		h
Species		Daphnia magna			
Method		OECD 202			
Source		ECHA			

Toxicity to Daphnia (chronic)
No data available

Toxicity to algae (acute)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**cyclohexane**	**110-82-7**	**203-806-2**

ErC50	>	4.425	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

2	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	-	927-510-4

EL50	10 -	30	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

3	butanone	78-93-3	201-159-0

EC50		2029	mg/l
Duration of exposure		96	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Toxicity to algae (chronic)

No	Substance name	CAS no.	EC no.
1	cyclohexane	110-82-7	203-806-2

NOEC		0.9	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Bacteria toxicity

No data available

12.2 Persistence and degradability

Biodegradability

No	Substance name	CAS no.	EC no.
1	acetone	67-64-1	200-662-2

Type	aerobic biodegradation		
Value		90.9	%
Duration		28	day(s)
Method	OECD 301 B		
Source	ECHA		
Evaluation	readily biodegradable		

2	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	-	927-510-4

Type	aerobic biodegradation		
Value		83	%
Duration		28	day(s)
Method	OECD 301 F		
Source	ECHA		
Evaluation	readily biodegradable		

3	butanone	78-93-3	201-159-0

Type	aerobic biodegradation		
Value		98	%
Duration		28	day(s)
Method	OECD 301 D		
Source	ECHA		
Evaluation	readily biodegradable		

4	ethyl-acetate	141-78-6	205-500-4

Type	aerobic biodegradation		
Value		69	%
Duration		20	d
Source	ECHA		
Evaluation	readily biodegradable		

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

No	Substance name	CAS no.	EC no.
1	acetone	67-64-1	200-662-2

log Pow	-0.23	
Method	QSAR	
Source	ECHA	

2	butanone	78-93-3	201-159-0

log Pow		0.3	
Reference temperature		40	°C
Method	OECD 117		
Source	ECHA		
3 ethyl-acetate	**141-78-6**	**205-500-4**	
log Pow		0.68	
Reference temperature		25	°C
with reference to	pH 7		
Method	OPPTS 830.7560		
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	The product is not considered to be a PBT.
vPvB assessment	The product is not considered to be a vPvB.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information
Do not discharge product unmonitored into the environment. Do not discharge into drains or waters and do not dispose of in public landfills.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.
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

Residues 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.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	3
Classification code	F1
Packing group	II
Hazard identification no.	33
UN number	UN1133
Proper shipping name	ADHESIVES
Special Provision 640	640C
Tunnel restriction code	D/E
Label	3
Environmentally hazardous substance mark	Symbol "fish and tree"

14.2 Transport IMDG

Class	3
Packing group	II
UN number	UN1133
Proper shipping name	ADHESIVES
EmS	F-E, S-D
Label	3
Marine pollutant mark	Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class	3
Packing group	II
UN number	UN1133
Proper shipping name	Adhesives

Label 3

14.4 Other information
No data available.

14.5 Environmental hazards
Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user
To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

14.7 Maritime transport in bulk according to IMO instruments
Not relevant

SECTION 15: Regulatory information

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

EU regulations

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
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.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES				
The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.				No 3, 40
The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.				
No	**Substance name**	**CAS no.**	**EC no.**	**No**
1	**cyclohexane**	**110-82-7**	**203-806-2**	**57**

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:	E2, P5b
If the properties of the substance/product give rise to more than one classification, for the purposes of 2012/18/UE, the lowest qualifying quantities set out in Part 1 and Part 2 of Annex I shall apply.	

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)		
VOC content	76.2	%
VOC-value	662.94	g/l

Other regulations
Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the data sheet:
Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.
Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.
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 section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

EUH066	Repeated exposure may cause skin dryness or cracking.
H304	May be fatal if swallowed and enters airways.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Creation of the safety data sheet
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This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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

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