

Trade name: ArmaFlex Cleaner

Current version : 2.0.0, issued: 24.02.2022

Replaced version: 1.1.2, issued: 13.12.2021

Region: USA

SECTION 1: Identification

1.1 Product identifier

Trade name

ArmaFlex Cleaner

1.2 Recommended use of the chemical and restrictions on use

Recommended use of the chemical and restrictions on use

designed for cleaning surfaces/substrates before applying Armaflex glues and cleaning tools (except Armaflex SF990 and Armaflex Ultima SF990)

For industrial and professional use only

Restrictions on use

No data available.

1.3 Details of the supplier of the safety data sheet

Address

Armacell LLC
55 Vilcom Center Drive
Suite 200
Chapel Hill, NC 27514

Telephone no. +1 800 866 5638

e-mail info.sds.ai.usmca@armacell.com

1.4 Emergency phone number

Armacell LLC
+1 919 304 3846

SECTION 2: Hazard(s) identification

2.1 Classification of the chemical

Classification of the chemical in accordance with paragraph (d) of 29 CFR § 1910.1200 "Hazard Communication"

Eye Irritation - Category 2A

Flammable Liquids - Category 2

Specific Target Organ Toxicity - Single Exposure - narcotic effects - Category 3

2.2 Label elements

Pictogram(s)



Signal word

Danger

Hazard Statement(s)

Physical hazards

Highly flammable liquid and vapor

Health hazards

Causes serious eye irritation

May cause drowsiness or dizziness

Precautionary Statement(s)

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/ lighting/equipment.

Use non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust.

Wash thoroughly after handling.

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Response	<p>Use only outdoors or in a well-ventilated area. Wear eye protection/face protection. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. In case of fire: Use carbon dioxide (CO₂), alcohol resistant foam, extinguishing powder, water mist to extinguish.</p>
Storage	<p>Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.</p>
Disposal	<p>Dispose of contents/container to a facility in accordance with local and national regulations.</p>

2.3 Labelling information

No data available

2.4 Hazards not otherwise classified (HNOC)

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	Concentration	%
	CAS no.		
1	ethyl acetate		
	141-78-6	>= 70.00 - < 90.00	%-b.w.
2	butanone		
	78-93-3	>= 10.00 - < 25.00	%-b.w.
3	Naphtha (petroleum), hydrotreated light		
	64742-49-0	>= 5.00 - < 10.00	%-b.w.

3.3 Other information

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of 29 CFR 1910.1200

SECTION 4: First-aid measures

4.1 Description of necessary 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.

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4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Irritating to eyes, respiratory system and skin. Breathing difficulties; Coughing; Light-headedness; 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: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray jet; Carbon dioxide; Dry chemical extinguisher; Foam

Unsuitable extinguishing media

Full water jet

5.2 Specific hazards arising from the chemical

In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂); Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back.

5.3 Special protective equipment and precautions for fire-fighters

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

Refer to protective measures listed in sections 7 and 8. Exclude sources of ignition and ventilate the area. Do not inhale vapours. Ensure adequate ventilation. Use personal protective clothing. Avoid contact with skin, eyes and clothing.

For emergency responders

Personal protective equipment (PPE) - see Section 8.

6.2 Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in suitable container for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions for safe handling

Provide good ventilation of working 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. Do not inhale vapours. Avoid contact with eyes and skin.

Advice on protection against fire and explosion

Keep away from sources of ignition - refrain from smoking. Take precautionary measures against static charges. No sparking tools should be used.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Always keep in containers of same material as the original.

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Incompatible products

Substances to be avoided: see chapter 10.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limit(s)

No	Substance name	CAS no.			
1	ethyl acetate	141-78-6			
ACGIH Threshold Limit Values					
Ethyl acetate					
	TWA		400		ppm
OSHA Permissible Exposure Limits (PELS)					
Ethyl acetate					
	TWA	1400	mg/m ³	400	ppm
2	butanone	78-93-3			
ACGIH Threshold Limit Values					
Methyl ethyl ketone					
	STEL		300		ppm
	TWA		200		ppm
	Remarks	BEI			
OSHA Permissible Exposure Limits (PELS)					
2-Butanone					
	TWA	590	mg/m ³	200	ppm

8.2 Exposure controls

Appropriate engineering controls

Provide good ventilation of working area (local exhaust ventilation if necessary).

Individual protection measures, such as 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

No data available.

Hand protection

Sufficient protection is given wearing suitable protective gloves in the event of risk of skin contact with the product. Before use, the protective glove 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.

Appropriate Material	neoprene		
Appropriate Material	nitrile rubber		
Material thickness	>	0.7	mm
Breakthrough time	>	60	min

Other protection measures

Chemical-resistant work clothes.

SECTION 9: Physical and chemical properties

Form/Color
liquid
colorless
Odor

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like solvents			
Odor threshold			
No data available			
pH value			
No data available			
Boiling point / boiling range			
Value	appr.	70	°C
Melting point / melting range			
No data available			
Decomposition point / decomposition range			
No data available			
Flash point			
Value	appr.	-20	°C
Method	Cleveland closed cup		
Auto-ignition temperature			
Value		274	°C
Oxidising properties			
No data available			
Explosive properties			
No data available			
Flammability			
No data available			
Lower flammability or explosive limits			
Value		1	% vol
Upper flammability or explosive limits			
Value		13	% vol
Vapor pressure			
Value	<	1100	hPa
Reference temperature		50	°C
Vapor 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	°C
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	
log Pow		0.68	
Reference temperature		25	°C
Method	EPA OPPTS 830.7560		

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Source	ECHA
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Viscosity			
Value	<	21	mm ² /s
Reference temperature		40	°C

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

None, when used as directed.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

strong oxidising agents

10.6 Hazardous decomposition products

None, if handled according to intended use.

SECTION 11: Toxicological information

Information on toxicological effects

Acute oral toxicity
No data available

Acute dermal toxicity			
No	Substance name	CAS no.	
1	ethyl acetate	141-78-6	
LD50	>	20000	mg/kg bodyweight
Species	rabbit		
Source	ECHA		

Acute inhalational toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/irritation			
No	Substance name	CAS no.	
1	butanone	78-93-3	
Method	OECD 405		
Evaluation	Irritating to eyes		
Species	rabbit		
Source	ECHA		

Respiratory or skin sensitisation			
No	Substance name	CAS no.	
1	ethyl acetate	141-78-6	
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		

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Source Evaluation	ECHA non-sensitizing
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Germ cell mutagenicity		
No	Substance name	CAS no.
1	ethyl acetate	141-78-6
Source Evaluation/classification		ECHA Based on available data, the classification criteria are not met.

Reproduction toxicity		
No	Substance name	CAS no.
1	ethyl acetate	141-78-6
Type of examination		Two-Generation Reproduction Toxicity Study
Species		mouse
Method		OECD 416
Source		ECHA
Evaluation/classification		Based on available data, the classification criteria are not met.

Carcinogenicity	
No data available	

NTP Report on Carcinogens (RoC)	
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed "known" (to be a human carcinogen) or "RAHC" (reasonably anticipated to be a human carcinogen).	

OSHA Standards listing cancer as a health effect (Table VII.6.2)	
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed as carcinogenic.	

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) classified by the IARC Monographs.	

STOT - single exposure	
No data available	

STOT - repeated exposure			
No	Substance name	CAS no.	
1	ethyl acetate	141-78-6	
Route of exposure		inhalational	
NOAEL		1.28	mg/l
Duration of exposure		90	day(s)
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	

Delayed and immediate effects as well as chronic effects from short and long-term exposure	
Inhalation of the vapours causes irritation of the respiratory tract and mucous membrane, headaches, nausea, giddiners, vomiting.	

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	
1	ethyl acetate	141-78-6	
LC50		230	mg/l

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Duration of exposure	96	h
Species	Pimelphales promelas	
Method	US EPA E03-05	
Source	ECHA	

Toxicity to fish (chronic)
No data available

Toxicity to Daphnia (acute)
No data available

Toxicity to Daphnia (chronic)		
No	Substance name	CAS no.
1	ethyl acetate	141-78-6
NOEC	2.4	mg/l
Duration of exposure	21	day(s)
Species	Daphnia magna	
Method	OECD 211	
Source	ECHA	

Toxicity to algae (acute)
No data available

Toxicity to algae (chronic)		
No	Substance name	CAS no.
1	ethyl acetate	141-78-6
NOEC	>	100 mg/l
Duration of exposure	72	h
Species	Desmodesmus subspicatus	
Method	OECD 201	
Source	ECHA	

12.2 Persistence and degradability

Biodegradability		
No	Substance name	CAS no.
1	ethyl acetate	141-78-6
Value	69	%
Duration	20	
Duration		day(s)
Evaluation	readily biodegradable	
Type	aerobic biodegradation	
Source	ECHA	

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water		
No	Substance name	CAS no.
1	ethyl acetate	141-78-6
log Pow	0.68	
Reference temperature	25	°C
Method	EPA OPPTS 830.7560	
Source	ECHA	

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

12.6 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.

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SECTION 13: Disposal considerations

13.1 Disposal considerations

Product

Dispose in accordance with federal, state and local regulations.

SECTION 14: Transport information

14.1 US DOT (Department of Transportation)

Transport hazard class	3
Packaging group	II
UN/NA number	UN1993
UN proper shipping name	Flammable liquids, n.o.s.
Label code(s)	3

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

Class	3
Packaging group	II
UN number	UN1993
Proper shipping name	Flammable liquid, n.o.s.
Label	3

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

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

Not relevant

SECTION 15: Regulatory information

15.1 US Federal Regulations

Toxic Substances Control Act (TSCA)

According to the data available and/or specifications supplied by upstream suppliers, all components of this product are on the TSCA Inventory or are exempted from notification requirements.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)

The product contains following substance(s) that are considered being subject to Table 302.4 "List of Hazardous Substances and Reportable Quantities"

No	Substance name	CAS no.
1	butanone	78-93-3
2	cyclohexane	110-82-7
3	ethyl acetate	141-78-6
4	n-hexane	110-54-3

Clean Air Act (CAA): Hazardous Air Pollutants (HAPS)

The product contains following substance(s) that are considered being "Hazardous Air Pollutants".

No	Substance name	CAS no.
1	n-hexane	110-54-3

Clean Water Act (CWA) Section 307 (Toxic Pollutants) and Section 311 (Hazardous Substances)

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	cyclohexane	110-82-7

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EPCRA SARA Section 313, Toxic Chemical Release Inventory

The product contains following substance(s) that are considered being subject to "SARA Reporting".

No	Substance name	CAS no.
1	cyclohexane	110-82-7
2	n-hexane	110-54-3

Emergency Planning & Community Right-to-Know Act (EPCRA) - Sections 302 and 304

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered being subject to reporting requirements.

Clean Air Act (CAA) - Section 602 Ozone depleting substances

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) listed as ozone depleting substance.

15.2 US State Regulations

Pennsylvania State Right to Know Hazardous Substance List

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	butanone	78-93-3
2	cyclohexane	110-82-7
3	ethyl acetate	141-78-6
4	n-hexane	110-54-3

New Jersey State Right to Know Hazardous Substance List

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	butanone	78-93-3
2	cyclohexane	110-82-7
3	ethyl acetate	141-78-6
4	n-hexane	110-54-3

Massachusetts State Right to Know Hazardous Substance List

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.
1	butanone	78-93-3
2	cyclohexane	110-82-7
3	ethyl acetate	141-78-6
4	n-hexane	110-54-3

California Code of Regulations Title 8 §339, Hazardous Substances List

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substance(s) that are considered to be "Hazardous Substances".

Right to Know - California State - Proposition 65

The product contains following substance(s) that are considered to be "Hazardous Substances".

No	Substance name	CAS no.	type of toxicity
1	n-hexane	110-54-3	male

15.3 Further regulations

According to the information available to the supplier of the data sheet, this product contains no ingredients listed in the Red List of the Living Building Challenge.

SECTION 16: Other information, including date of preparation or last revision

16.1 Other 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.

16.2 Date of preparation/revision of the SDS

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16.4 Conclusions

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Prod-ID 769605

16.5 Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists
ATE – Acute Toxicity Estimate
BOD - Biochemical Oxygen Demand
CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania
CAS - Chemical Abstracts Service
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CFR - Code of Federal Regulations (US)
CLP - Classification, Labelling, and Packaging
DOT - Department of Transportation Commission
ECHA – European Chemicals Agency
EC / EL – Effective Concentration / Effective Loading
EPA - Environmental Protection Agency
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IBC – Intermediate Bulk Container
ICAO - International Civil Aviation Organization
IDL - Ingredient Disclosure List
IDLH - Immediately Dangerous to Life and Health
IMDG - International Maritime Dangerous Goods
IUCLID - International Uniform Chemical Information Database
Kow - Octanol/water partition coefficient
LD/LC - Lethal Dose/ Lethal Concentration
MARPOL – Marine Pollution
MEL - Maximum Exposure Limits
NFPA - National Fire Protection Agency
NIOSH - National Institute for Occupational Safety and Health
NJTSR - New Jersey Trade Secret Registry
NOEL/NOEC – No Observed Effect Level / No Observed Effect Concentration
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL- Permissible Exposure Limit
RCRA - Resource Conservation and Recovery Act
SARA - Superfund Amendments and Reauthorization Act
STEL - Short-term Exposure Limit
STOT – Specific Target Organ Toxicity
TDG - Transportation of Dangerous Goods
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
UN/NA - United Nations /North American
US - United States
VLE - Exposure Limit Value (Mexico)
VOC – Volatile Organic Compounds