



# **FY2024 SDS Binder**

## **Section 08**

### **ArmaFlex 520**

### **Contact Adhesive**

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**Trade name:** ArmaFlex 520 Contact Adhesive

**Current version :** 2.0.0, issued: 24.02.2022

**Replaced version:** 1.0.4, issued: 13.12.2021

**Region:** USA

## SECTION 1: Identification

### 1.1 Product identifier

**Trade name**

**ArmaFlex 520 Contact Adhesive**

### 1.2 Recommended use of the chemical and restrictions on use

**Recommended use of the chemical and restrictions on use**

Adhesive for processing all flexible Armaflex insulation materials

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

Reproductive Toxicity - Category 2

Skin Corrosion / Irritation - Category 2

Skin sensitization - Category 1

Specific Target Organ Toxicity - Repeated or Prolonged Exposure - Category 2

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

**Classification of the chemical with regard to hazards for the aquatic environment in accordance with the UN GHS criteria relevant for dangerous goods transport classification**

Aquatic Chronic - Category 2

### 2.2 Label elements

**Pictogram(s)**



**Signal word**

Danger

**Hazard Statement(s)**

Physical hazards

Health hazards

Highly flammable liquid and vapor

Causes skin irritation

May cause an allergic skin reaction

Causes serious eye irritation

May cause drowsiness or dizziness

Suspected of damaging fertility or the unborn child.

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<b>Precautionary Statement(s)</b>	May cause damage to organs through prolonged or repeated exposure.
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 mist/vapours/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
Response	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. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Get medical advice/attention if you feel unwell. Specific treatment (see first aid instruction on this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. In case of fire: Use carbon dioxide (CO <sub>2</sub> ), alcohol resistant foam, extinguishing powder, water mist to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.
Disposal	Store locked up. Dispose of contents/container to a facility in accordance with local and national regulations.

**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	<b>ACETONE</b> 67-64-1	>= 25.00 - < 50.00	%-b.w.
2	<b>toluene</b> 108-88-3	>= 25.00 - < 50.00	%-b.w.
3	<b>n-hexane</b> 110-54-3	>= 25.00 - < 50.00	%-b.w.
4	<b>Formaldehyde, polymer with 4-(1,1-dimethylethyl)phenol</b> 25085-50-1	>= 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

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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). Get immediate ophthalmic treatment.

#### After ingestion

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

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

#### Symptoms

Headache; Dizziness; Drowsiness; Nausea; Vomiting

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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

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

#### 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 dioxide (CO<sub>2</sub>); Carbon monoxide (CO); Nitrogen oxides (NO<sub>x</sub>); Hydrogen cyanide (HCN); Hydrogen chloride (HCl)

### 5.3 Special protective equipment and precautions for fire-fighters

Use self-contained breathing apparatus. Wear full protective suit. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Containers close to fire should be transferred to a safe place.

## 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. Remove persons to safety. Ensure adequate ventilation.

#### 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

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**7.1 Precautions for safe handling**

**Precautions for safe handling**

Provide good ventilation of working area (local exhaust ventilation if necessary). Risks inherent to handling the product must be minimised by applying 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. If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. For personal protection see section 8.

**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. Remove soiled or soaked clothing immediately. Avoid contact with eyes and skin. Do not inhale vapours. Provide eye wash fountain in work area. Hold emergency shower available.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - refrain from smoking. No sparking tools should be used. Vapours can form an explosive mixture with air. Take precautionary measures against electrostatic loading (earthing necessary during loading operations).

**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.

**Incompatible products**

Do not store together with: Acids; Bases; Oxidizing agents; Do not store with combustible materials.

**SECTION 8: Exposure controls / personal protection**

**8.1 Control parameters**

Occupational exposure limit(s)

No	Substance name	CAS no.
1	ACETONE	67-64-1
<b>ACGIH Threshold Limit Values</b>		
Acetone		
	STEL	500 ppm
	TWA	250 ppm
	Remarks	A4; BEI
<b>OSHA Permissible Exposure Limits (PELS)</b>		
Acetone		
	TWA	2400 mg/m <sup>3</sup> 1000 ppm
2	toluene	108-88-3
<b>OSHA Permissible Exposure Limits (PELS)</b>		
Toluene		
	TWA	200 ppm
	Ceiling Limit	300 ppm
	Remarks	Z37.12-1967. See Z-2
<b>ACGIH Threshold Limit Values</b>		
Toluene		
	TWA	20 ppm
	Skin resorption / sensibilisation	
	Remarks	OTO; A4; BEI
3	n-hexane	110-54-3
<b>ACGIH Threshold Limit Values</b>		
n-Hexane		
	TWA	50 ppm
	Remarks	Skin; BEI
<b>OSHA Permissible Exposure Limits (PELS)</b>		

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n-Hexane				
TWA	1800	mg/m <sup>3</sup>	500	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 aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Respirator AX

**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	butyl rubber		
Material thickness	>	0.7	mm
Inappropriate material	nitrile rubber		
Inappropriate material	PVC		
Inappropriate material	viton		
Inappropriate material	Natural rubber, NR		

**Other protection measures**

fire-resistant antistatic protective clothing

**SECTION 9: Physical and chemical properties**

<b>Form/Color</b>	
liquid	
greenish yellow	
<b>Odor</b>	
like solvents	
<b>Odor threshold</b>	
No data available	
<b>pH value</b>	
No data available	
<b>Boiling point / boiling range</b>	
Value	> 56.5 °C
Source	supplier
<b>Melting point / melting range</b>	
No data available	
<b>Decomposition point / decomposition range</b>	
No data available	
<b>Flash point</b>	
Value	-26 °C
Method	Setaflash closed cup
Source	supplier
<b>Auto-ignition temperature</b>	
Value	235 °C

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Source	supplier
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<b>Oxidising properties</b>	
No data available	

<b>Explosive properties</b>	
No data available	

<b>Flammability</b>	
Not applicable	
Source	supplier

<b>Lower flammability or explosive limits</b>	
No data available	

<b>Upper flammability or explosive limits</b>	
No data available	

<b>Vapor pressure</b>			
Value		180	mm Hg
Reference temperature		20	°C
Source	supplier		

<b>Vapor density</b>	
No data available	

<b>Evaporation rate</b>	
No data available	

<b>Relative density</b>			
Value	appr.	0.83	
Source	supplier		

<b>Density</b>	
No data available	

<b>Solubility in water</b>	
Source	supplier
Remarks	immiscible

<b>Solubility(ies)</b>	
No data available	

<b>Partition coefficient: n-octanol/water</b>	
No data available	

<b>Viscosity</b>			
Value	>	1000	mm <sup>2</sup> /s
Reference temperature		40	°C
Type	kinematic		
Source	supplier		

<b>Solids content</b>			
Value	appr.	19	%

**Other information**

<b>Other information</b>	
No data available.	

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No data available.

**10.2 Chemical stability**

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

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**10.3 Possibility of hazardous reactions**

None, when used as directed.

**10.4 Conditions to avoid**

Heat, open flames and other sources of ignition.

**10.5 Incompatible materials**

strong acids; strong bases; strong oxidising agents; combustible materials

**10.6 Hazardous decomposition products**

None, if handled according to intended use. In case of fire: see section 5 .

**SECTION 11: Toxicological information**
**Information on toxicological effects**
**Acute oral toxicity**

No data available

**Acute dermal toxicity**

No data available

**Acute inhalational toxicity**

No data available

**Skin corrosion/irritation**

No	Substance name	CAS no.
1	toluene	108-88-3
Method		EU B.4
Evaluation		irritant
Species		rabbit
Source		ECHA

**Serious eye damage/irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Reproduction toxicity**

No	Substance name	CAS no.
1	toluene	108-88-3
Route of exposure		inhalational
Species		rats (male/female)
Method		Value taken from the literature
Source		ECHA
Evaluation/classification		Based on available data, the classification criteria are 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**

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The product contains following substance(s) classified by the IARC Monographs			
No	Substance name	CAS no.	Group
1	toluene	108-88-3	3

<b>STOT - single exposure</b>
No data available

<b>STOT - repeated exposure</b>		
No	Substance name	CAS no.
1	toluene	108-88-3
Route of exposure	inhalative, oral	
Species	rats (male/female)	
Method	EU Method B.26	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are met.	

<b>Aspiration hazard</b>
Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

**12.1 Toxicity**

<b>Toxicity to fish (acute)</b>			
No	Substance name	CAS no.	
1	toluene	108-88-3	
Duration of exposure		5.5	
Species	Oncorhynchus kisutch	96	
Duration of exposure			h
Method	Value taken from the literature		mg/l
Source	ECHA		
LC50			

<b>Toxicity to fish (chronic)</b>			
No data available			

<b>Toxicity to Daphnia (acute)</b>			
No	Substance name	CAS no.	
1	toluene	108-88-3	
Duration of exposure		3.78	
EC50		48	
Method	US EPA 600/4-91-003		
Duration of exposure			h
Source	ECHA		mg/l
Species	Daphnia magna		

<b>Toxicity to Daphnia (chronic)</b>			
No data available			

<b>Toxicity to algae (acute)</b>			
No	Substance name	CAS no.	
1	toluene	108-88-3	
EC50		134	mg/l
Duration of exposure		3	h
Species	Chlorella vulgaris		
Source	ECHA		

<b>Toxicity to algae (chronic)</b>			
No data available			

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## 12.2 Persistence and degradability

No data available.

## 12.3 Bioaccumulative potential

No data available.

## 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 into drains or waters and do not dispose of in public landfills.

## SECTION 13: Disposal considerations

### 13.1 Disposal considerations

#### Product

Dispose in accordance with federal, state and local regulations.

#### 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 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	UN1133
UN proper shipping name	Adhesives
Label code(s)	3

### 14.2 Transport IMDG

Class	3
Packaging group	II
UN number	UN1133
Proper shipping name	ADHESIVES
Danger releasing substance	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane
EmS	F-E, S-D
Label	3
Marine pollutant mark	Symbol "fish and tree"

### 14.3 Transport ICAO-TI / IATA

Class	3
Packaging 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, pls. 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.

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**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**

<b>Toxic Substances Control Act (TSCA)</b>		
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.		

<b>CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)</b>		
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	ACETONE	67-64-1
2	n-hexane	110-54-3
3	toluene	108-88-3

<b>Clean Air Act (CAA): Hazardous Air Pollutants (HAPS)</b>		
The product contains following substance(s) that are considered being "Hazardous Air Pollutants".		
No	Substance name	CAS no.
1	n-hexane	110-54-3
2	toluene	108-88-3

<b>Clean Water Act (CWA) Section 307 (Toxic Pollutants) and Section 311 (Hazardous Substances)</b>		
The product contains following substance(s) that are considered to be "Hazardous Substances".		
No	Substance name	CAS no.
1	toluene	108-88-3

<b>EPCRA SARA Section 313, Toxic Chemical Release Inventory</b>		
The product contains following substance(s) that are considered being subject to "SARA Reporting".		
No	Substance name	CAS no.
1	n-hexane	110-54-3
2	toluene	108-88-3

<b>Emergency Planning &amp; Community Right-to-Know Act (EPCRA) - Sections 302 and 304</b>		
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.		

<b>Clean Air Act (CAA) - Section 602 Ozone depleting substances</b>		
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**

<b>Pennsylvania State Right to Know Hazardous Substance List</b>		
The product contains following substance(s) that are considered to be "Hazardous Substances".		
No	Substance name	CAS no.
1	ACETONE	67-64-1
2	n-hexane	110-54-3
3	toluene	108-88-3

<b>New Jersey State Right to Know Hazardous Substance List</b>		
The product contains following substance(s) that are considered to be "Hazardous Substances".		
No	Substance name	CAS no.
1	ACETONE	67-64-1
2	n-hexane	110-54-3
3	toluene	108-88-3

<b>Massachusetts State Right to Know Hazardous Substance List</b>		
The product contains following substance(s) that are considered to be "Hazardous Substances".		
No	Substance name	CAS no.

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1	ACETONE	67-64-1
2	n-hexane	110-54-3
3	toluene	108-88-3

**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
2	toluene	108-88-3	developmental

**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**

Current version	2.0.0	24.02.2022
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**16.4 Conclusions**

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Prod-ID 775657

**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

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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