SAFETY DATA SHEET

TRADE NAME: ArmaFlex Shield

Current version: 2.0.0, issued: 24.02.2022 | Replaced version: 1.0.2, issued: 14.12.2021

Region: USA

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

TRADE NAME

ArmaFlex Shield

1.2 RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

Industrial Use

Professional use

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
EMAIL: 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 INFORMATION

This product is an article in the sense of the definition according to CFR (Code of Federal Regulations), Title 29, §1910.1200 “Hazard Communication” and is not subject to the labelling obligations thereof.

2.2 LABEL ELEMENTS

Not relevant

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
This product does not contain substances to be mentioned in accordance with paragraph (d) of 29 CFR § 1910.1200 "Hazard Communication".

SECTION 4: FIRST-AID MEASURES

4.1 DESCRIPTION OF NECESSARY FIRST-AID MEASURES

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

AFTER INHALATION
Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air.

AFTER SKIN CONTACT
In case of contact with skin wash off with water.

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).

AFTER INGESTION
Rinse mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED
No data available.

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; Dry chemical extinguisher; Foam; Carbon dioxide

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)

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

Use self-contained breathing apparatus. Wear protective clothing. 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.

FOR EMERGENCY RESPONDERS

Personal protective equipment (PPE) - see Section 8.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Collect mechanically. When collected, handle material as described under the section heading “Disposal considerations”. Avoid raising dust.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

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.

GENERAL PROTECTIVE AND HYGIENCE MEASURES

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale dust. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing.

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.

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

SUBSTANCES TO BE AVOIDED

see chapter 10.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

No parameters available for monitoring

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 PEL (=Permissible Exposure Limit), suitable respiratory protection must be worn.

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 dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

EYE/FACE PROTECTION
Safety glasses with side protection shield.

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.

OTHER PROTECTION MEASURES
Chemical-resistant work clothes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

FORM/COLOUR	Foam material | Black
ODOUR	No data available
ODOUR THRESHOLD	No data available
pH VALUE	No data available
BOILING POINT/BOILING RANGE	No data available
MELTING POINT/MELTING RANGE	No data available
DECOMPOSITION POINT/DECOMPOSITION RANGE	No data available
FLASH POINT	No data available
AUTO-IGNITION TEMPERATURE	No data available
OXIDISING PROPERTIES	No data available
EXPLOSIVE PROPERTIES	No data available
FLAMMABILITY	No data available
LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	No data available
UPPER FLAMMABILITY OR EXPLOSIVE LIMITS	No data available
VAPOUR PRESSURE	No data available
VAPOUR DENSITY	No data available
EVAPORATION RATE	No data available
RELATIVE DENSITY	No data available
DENSITY	No data available
SOLUBILITY IN WATER	No data available
SOLUBILITY	No data available
PARTITION COEFFICIENT: N-OCTANOL/WATER	No data available
VISCOSITY	No data available
OTHER INFORMATION	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY
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.

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

10.3 POSSIBILITY OF HAZARDOUS REACTIONS
Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 CONDITIONS TO AVOID
No data available.

10.5 INCOMPATIBLE MATERIALS
No data available.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS
No data available.

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 data available
SERIOUS EYE DAMAGE/IRRITATION	No data available
RESPIRATORY OR SKIN SENSITISATION	No data available
GERM CELL MUTAGENICITY	No data available
REPRODUCTION TOXICITY	No data available
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

The product contains following substance(s) classified by the IARC Monographs.

No.	SUBSTANCE NAME	CAS No.	GROUP
1	Antimony Trioxide	1309-64-4	2B
2	Carbon Black	1333-86-4	2B
3	Hematite (Fe2O3)	1317-60-8	3
4	Polyvinyl chloride	9002-86-2	3

STOT | SINGLE EXPOSURE	No data available
STOT | REPEATED EXPOSURE	No data available
ASPIRATION HAZARD	No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

TOXICITY TO FISH | ACUTE	No data available
TOXICITY TO FISH | CHRONIC	No data available
TOXICITY TO DAPHNIA | ACUTE	No data available
TOXICITY TO DAPHNIA | CHRONIC	No data available
TOXICITY TO ALGAE | ACUTE	No data available
TOXICITY TO ALGAE | CHRONIC	No data available

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
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 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)
The product is not subject to DOT regulations.

14.2 TRANSPORT IMDG
The product is not subject to IMDG regulations.

14.3 TRANSPORT ICAO-TI / IATA
The product is not subject to ICAO-TI / IATA regulations.

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
The product is not subject to DOT 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	Antimony Trioxide	1309-64-4
2	Zinc Oxide	1314-13-2

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	Antimony Trioxide	1309-64-4
2	Zinc Oxide	1314-13-2

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	Antimony Trioxide	1309-64-4
2	Zinc Oxide	1314-13-2

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	Antimony Trioxide	1309-64-4
2	Zinc Oxide	1314-13-2

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	Antimony Trioxide	1309-64-4
2	Carbon Black	1333-86-4

3	Limestone	1317-65-3
4	Zinc Oxide	1314-13-2

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	Antimony Trioxide	1309-64-4
2	Carbon Black	1333-86-4
3	Limestone	1317-65-3
4	Polyvinyl Chloride	9002-86-2
5	Zinc Oxide	1314-13-2

MASSACHUSETTS 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	Antimony Trioxide	1309-64-4
2	Zinc Oxide	1314-13-2

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	Antimony Trioxide	1309-64-4	Cancer
2	Carbon Black	1314-13-2	Cancer

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

16.1 OTHER INFORMATION
No data available.

16.2 DATE OF PREPARATION/REVISION OF THE SDS

CURRENT VERSION	REPLACED VERSION
2.0.0 | 24.02.2022	1.0.2 14.12.2021

16.3 DEPARTMENT ISSUING 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

16.4 CONCLUSIONS

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. Document protected by copyright. Alterations or reproductions require the express written permission of UMCO GmbH.

PROD-ID 775630

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