

# **Safety Data Sheet**

# Prepared in Accordance with HCS 29 C.F.R. 1910.1200

# 1. Identification of the Substance/Mixture and the Company/Undertaking

1.1Product Identifier4501S1NLRevision Date:08/29/2023

Product Name: ARMORLAST I Supercedes Date: 12/06/2022

1.2 Relevant identified uses of the substance or mixture and uses advised against Monocomponent industrial coating - Industrial use.

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer: Carboline Global Inc.

2150 Schuetz Road St. Louis, MO USA 63146

Regulatory / Technical Information: Contact Carboline Technical Services at

1-800-848-4645

Datasheet Produced by:

Beebe, Hayli - regulatory@carboline.com

1.4 Emergency telephone number: CHEMTREC 1-800-424-9300 (Inside US)

CHEMTREC +1 703 5273887 (Outside US)

HEALTH - Pittsburgh Poison Control 1-412-681-6669

# 2. Hazard Identification

#### 2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 4
Hazardous to the aquatic environment, Chronic, category 3
Carcinogenicity, category 1A
Eye Irritation, category 2
Flammable Liquid, category 2
STOT, repeated exposure, category 1
STOT, single exposure, category 3, RTI
Skin Irritation, category 2
Skin Sensitizer, category 1

## 2.2 Label elements

# Symbol(s) of Product







# Signal Word

Danger

## Named Chemicals on Label

PARACHLOROBENZO TRIFLUORIDE, METHYL N-AMYL KETONE, 2-BUTOXYETHANOL, AMORPHOUS SILICA, ETHYL POLYSILICATE, MICA, MICROCRYSTALLINE SILICA

## **HAZARD STATEMENTS**

Flammable Liquid, category 2	H225	Highly flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Carcinogenicity, category 1A	H350-1A	May cause cancer.
STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

# PRECAUTION PHRASES

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read
	and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
P235	Keep cool.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/
	face protection.
P284	Wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in
	a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention
P314	Get medical advice/attention if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to waste treatment/disposal facility in accordance with local, state, and federal

regulations.

#### 2.3 Other hazards

No Information

## Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

# 3. Composition/Information On Ingredients

#### 3.2 Mixtures

## Hazardous ingredients

Name According to EEC	EINEC No.	CAS-No.	<u>%</u>	Classifications	
ETHYL POLYSILICATE	234-324-0	11099-06-2	10 - <25	H319-332-335-411	Acute Tox. 4 Inhalation, Aquatic Chronic 2, Eye Irrit. 2, STOT SE 3 RTI
ETHYL ALCOHOL	200-578-6	64-17-5	10 - <25	H225	Flam. Liq. 2
MICROCRYSTALLINE SILICA	238-878-4	14808-60-7	10 - <25	H350-372	Carc. 1A, STOT RE 1
MICA	310-127-6	12001-26-2	2.5 - <10	H319-335	Eye Irrit. 2, STOT SE 3 RTI
PARACHLOROBENZO TRIFLUORIDE	202-681-1	98-56-6	2.5 - <10	H226-315-317-319-335	
TITANIUM DIOXIDE	236-675-5	13463-67-7	2.5 - <10		
METHYL N-AMYL KETONE	203-767-1	110-43-0	2.5 - <10	H226-302-332	Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Flam. Liq. 3
SILICA, CRYSTALLINE FREE	601-216-3	112945-52-5	2.5 - <10		
2-BUTOXYETHANOL	203-905-0	111-76-2	2.5 - <10	H302-312-315-319-332	Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Acute Tox. 4 Oral, Eye Irrit. 2, Skin Irrit. 2
AMORPHOUS SILICA	231-545-4	7631-86-9	1.0 - <2.5	H335-372	STOT RE 1, STOT SE 3 RTI

CAS-No.	<u>M-Factors</u>
11099-06-2	0
64-17-5	0
14808-60-7	0
12001-26-2	0
98-56-6	0
13463-67-7	0
110-43-0	0
112945-52-5	0
111-76-2	0
7631-86-9	0

**Remarks:** CAS No 13463-67-7: Note 10

Additional Information: The text for GHS Hazard Statements shown above (if any) is given in Section 16.

# 4. First-aid Measures

# 4.1 Description of First Aid Measures

**AFTER INHALATION:** Give oxygen or artificial respiration if needed. Remove person to fresh air. If signs/symptoms continue, get medical attention.

AFTER SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while

removing contaminated clothing and shoes. If skin irritation persists, call a physician.

AFTER EYE CONTACT: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**AFTER INGESTION:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, call a poison control centre or doctor immediately.

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

Harmful if swallowed. Irritating to eyes and skin. Risk of serious damage to the lungs (by aspiration). Vapours may cause drowsiness and dizziness.

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

When symptoms persist or in all cases of doubt seek medical advice.

# 5. Fire-fighting Measures

#### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: Flammable liquid. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Vapors may travel to areas away from work site before igniting/flashing back to vapor source. Provide adequate ventilation. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Electrical installations / working materials must comply with the technological safety standards. Wear shoes with conductive soles.

FOR SAFETY REASONS NOT TO BE USED: Do not use a solid water stream as it may scatter and spread fire.

#### 5.2 Special hazards arising from the substance or mixture

No Information

#### 5.3 Advice for firefighters

SPECIAL FIREFIGHTING PROCEDURES: In the event of fire, wear self-contained breathing apparatus. Cool containers / tanks with water spray. Flammable.

SPECIAL FIREFIGHTING PROTECTION EQUIPMENT: No Information

## 6. Accidental Release Measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment. For personal protection see section 8.

#### 6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

#### 6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

#### 6.4 Reference to other sections

No Information

# 7. Handling and Storage

# 7.1 Precautions for safe handling

**INSTRUCTIONS FOR SAFE HANDLING:** Keep containers dry and tightly closed to avoid moisture absorption and contamination. Prepare the working solution as given on the label(s) and/or the user instructions. Do not breathe vapours or spray mist. Ensure all equipment is electrically grounded before beginning transfer operations. Do not use sparking tools. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation/personal protection. Wash thoroughly after handling.

**PROTECTION AND HYGIENE MEASURES:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

### 7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Heat, flames and sparks.

**STORAGE CONDITIONS:** Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

#### 7.3 Specific end use(s)

The mixing and application to be in accordance with the technical data sheets.

# 8. Exposure Controls/Personal Protection

# 8.1 Control parameters

# Ingredients with Occupational Exposure Limits (US)

<u>Name</u>	CAS-No.	ACGIH TWA	ACGIH STEL	ACGIH Ceiling
ETHYL POLYSILICATE	11099-06-2	N/E	N/E	N/E
ETHYL ALCOHOL	64-17-5	N/E	1000 PPM	N/E
MICROCRYSTALLINE SILICA	14808-60-7	0.025 MGM3	N/E	N/E
MICA	12001-26-2	3 MGM3	N/E	N/E
PARACHLOROBENZO TRIFLUORIDE	98-56-6	N/E	N/E	N/E
TITANIUM DIOXIDE	13463-67-7	10 mg/m3	N/E	N/E
METHYL N-AMYL KETONE	110-43-0	50 PPM	N/E	N/E
SILICA, CRYSTALLINE FREE	112945-52-5	10. MG/M3	N/E	N/E
2-BUTOXYETHANOL	111-76-2	20 PPM	50 PPM	N/E
AMORPHOUS SILICA	7631-86-9	10.0 MG/M3	N/E	N/E

<u>Name</u>	CAS-No.	OSHA PEL	OSHA STEL
ETHYL POLYSILICATE	11099-06-2	N/E	N/E
ETHYL ALCOHOL	64-17-5	1900 MGM3, 1000 PPM	N/E
MICROCRYSTALLINE SILICA	14808-60-7	0.05 MGM3	N/E
MICA	12001-26-2	20. MPPCF	N/E
PARACHLOROBENZO TRIFLUORIDE	98-56-6	N/E	N/E
TITANIUM DIOXIDE	13463-67-7	15 MGM3	N/E
METHYL N-AMYL KETONE	110-43-0	465 MGM3, 100 PPM	N/E
SILICA, CRYSTALLINE FREE	112945-52-5	5 MG/M3	N/E
2-BUTOXYETHANOL	111-76-2	120 MGM3, 25 PPM	N/E
AMORPHOUS SILICA	7631-86-9	15.0 mg/m3	N/E

**FURTHER ADVICE:** Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

#### 8.2 Exposure controls

#### **Personal Protection**

**RESPIRATORY PROTECTION:** In order to avoid inhalation of spray-mist and sanding dust, all spraying and sanding must be done wearing adequate respirator. Use only with ventilation to keep levels below exposure guidelines reported in this document. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure, or not able to monitor, use State or federally approved supplied air respirator. For silica containing coatings in a liquid state, and/or if no exposure limits are established above, air-supplied respirators are generally not required.

EYE PROTECTION: Safety glasses with side-shields.

**HAND PROTECTION:** Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Impervious gloves. Request information on glove permeation properties from the glove supplier. Lightweight protective clothing

0.9 - 36.0

OTHER PROTECTIVE EQUIPMENT: Ensure that eyewash stations and safety showers are close to the workstation location.

**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

# 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Viscous Grey Liquid

Physical State Liquid
Odor Solvent
Odor threshold N/D
pH N/D
Melting point / freezing point (°C) N/D

**Boiling point/range (°C)** 149 F (65 C) - 393 F (201 C)

Flash Point (°C) 61F (16C)

Evaporation rate Slower Than Ether

Flammability (solid, gas) Not determined

Upper/lower flammability or explosive

limits

Vapour Pressure, mmHg N/D

Vapour density Heavier than Air
Relative density Not determined

Solubility in / Miscibility with water N/D

Partition coefficient: n-octanol/water

Auto-ignition temperature (°C)

Not determined

Decomposition temperature (°C)

Not determined

Viscosity Unknown

Explosive properties Not determined

Oxidising properties Not determined

9.2 Other information

VOC Content g/l: 360
Specific Gravity (g/cm3) 1.57

# 10. Stability and Reactivity

## 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

#### 10.4 Conditions to avoid

Heat, flames and sparks.

#### 10.5 Incompatible materials

Strong oxidizing agents.

# 10.6 Hazardous decomposition products

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

# 11. Toxicological Information

#### 11.1 Information on toxicological effects

**Acute Toxicity:** 

Oral LD50: N/D Inhalation LC50: N/D

Irritation: Unknown

Corrosivity: Unknown

Sensitization: Unknown

Repeated dose toxicity: Unknown

Carcinogenicity: Unknown

Mutagenicity: Unknown

Toxicity for reproduction: Unknown

STOT-single exposure: No Information

STOT-repeated exposure: No Information

Aspiration hazard: No Information

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50	Gas LC50	<u>Dust/Mist</u> <u>LC50</u>
11099-06-2	ETHYL POLYSILICATE	Not Available		Not Available	0.000	0.000
64-17-5	ETHYL ALCOHOL	7060 mg/kg, oral, rat	No Information	20000 ppm/10 hrs, rat, inhalation	No Information	No Information

14808-6	0-7 MICROCRYSTALLINE SILICA	22500 mg/kg	No Information	No Informaiton	No Information	No Information
12001-2	6-2 MICA	No Information	No Information	No Information	No Information	No Information
98-56-6	PARACHLOROBENZO TRIFLUORIDE	6800 mg/kg, oral, rat	3300 mg/kg, dermal, rabbit	4479 ppm	0.000	0.000
13463-6	7-7 TITANIUM DIOXIDE	25000 mg/kg, oral (rat)	No Information	No Information	No Information	No Information
110-43-	METHYL N-AMYL KETONE	1670 mg/kg rat oral	Not Available	2000 ppm, 4 hours	0.000	0.000
112945-	52-5 SILICA, CRYSTALLINE FREE	10000 mg/kg, oral, rat	Not Available	Not Available	0.000	0.000
111-76-2	2 2-BUTOXYETHANOL	1300 mg/kg, oral, rat	2000 mg/kg, dermal, rat	450 ppm/l / 4H, rat, Inhalation	0.000	0.000

#### Additional Information:

Constituents of this product may include crystalline silica which, if inhalable, may cause silicosis, a form or progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group 1 carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. This classification is relevant when exposed to Quartz (silicon dioxide) in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities. Constituents may also include abestiform or non-asbestiform tremolite or other silicates as impurities, and above dei minimus exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

# 12. Ecological Information

#### 12.1 Toxicity:

EC50 48hr (Daphnia):

IC50 72hr (Algae):

Unknown

Unknown

Unknown

12.2 Persistence and degradability: Unknown

12.3 Bioaccumulative potential: Unknown

**12.4 Mobility in soil:** Unknown

12.5 Results of PBT and vPvB

assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: Unknown

CAS-No.	<u>Chemical Name</u>	EC50 48hr	IC50 72hr	LC50 96hr
11099-06-2	ETHYL POLYSILICATE	No information	No information	No information
64-17-5	ETHYL ALCOHOL	2 mg/l (Daphnia Magna)	No information	42 mg/l (fish)
14808-60-7	MICROCRYSTALLINE SILICA	No information	No information	No information
12001-26-2	MICA	No information	No information	No information
98-56-6	PARACHLOROBENZO TRIFLUORIDE	2 mg/l (Daphnia magna)	No information	3 mg/l (Zebra fish)
13463-67-7	TITANIUM DIOXIDE	No information	No information	No information
110-43-0	METHYL N-AMYL KETONE	No information	No information	126 - 137 mg/L - Pimephales promelas
112945-52-5	SILICA, CRYSTALLINE FREE	No information	No information	No information

 111-76-2
 2-BUTOXYETHANOL
 1800 mg/l (Water flea)
 911 mg/l (Algae)
 1474 mg/kg (Fish)

 7631-86-9
 AMORPHOUS SILICA
 No information
 10000 mg/l (Algae)
 10000 mg/l (Zebra fish)

# 13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

# 14. Transport Information

14.1	UN number	UN 1263
14.2	UN proper shipping name	Paint
	Technical name	N/A
14.3	Transport hazard class(es)	3
	Subsidiary shipping hazard	N/A
14.4	Packing group	II
14.5	Environmental hazards	Unknown
14.6	Special precautions for user	Unknown
	EmS-No.:	F-E, S-E
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Unknown

# 15. Regulatory Information

# U.S. Federal Regulations: As follows -

## **CERCLA - Sara Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Flammable (gases, aerosols, liquids, or solids), Carcinogenicity, Acute Toxicity (any route of exposure), Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.	<u>%</u>
NICKEL ANTIMONY COMPOUND	8007-18-9	1.73
HYDROGEN CHLORIDE	7647-01-0	0.03

## **Toxic Substances Control Act:**

All components of this product are either listed on the TSCA Inventory or are exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Chemical NameCAS-No.PARACHLOROBENZO TRIFLUORIDE98-56-6

<sup>15.1</sup> Safety, health and environmental regulations/legislation for the substance or mixture:

# U.S. State Regulations: As follows -

# New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

Chemical NameCAS-No.ANHYDROUS ALUMINUM SILICATE66402-68-4

#### Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

Chemical NameCAS-No.ANHYDROUS ALUMINUM SILICATE66402-68-4DIPROPYLENE GLYCOL METHYL ETHER34590-94-8

#### **CALIFORNIA PROPOSITION 65**

WARNING: Cancer and Reproductive Harm -- www.P65Warnings.ca.gov

# International Regulations: As follows -

#### \* Canadian DSL:

No Information

## 15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

# 16. Other Information

## Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H225 Highly flammable liquid and vapour.	
H226 Flammable liquid and vapour.	
H302 Harmful if swallowed.	
H312 Harmful in contact with skin.	
H315 Causes skin irritation.	
H317 May cause an allergic skin reaction.	
H319 Causes serious eye irritation.	
H332 Harmful if inhaled.	
H335 May cause respiratory irritation.	
H350 May cause cancer.	
H372 Causes damage to organs through prolonged or repeated expos	sure.
H411 Toxic to aquatic life with long lasting effects.	

#### Reasons for revision

No Information

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.