

**Safety Data Sheet****Prepared in Accordance with HCS 29  
C.F.R. 1910.1200****1. Identification of the Substance/Mixture and the Company/Undertaking**

- 1.1 Product Identifier** 1027A1NL **Revision Date:** 07/12/2022  
**Product Name:** CARBOGUARD 690 **Supersedes Date:** 04/07/2021  
PART A
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** Component of multicomponent industrial coatings - 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**

Hazardous to the aquatic environment, Chronic, category 3  
Carcinogenicity, category 1A  
Eye Irritation, category 2  
Flammable Liquid, category 3  
Reproductive Toxicity, category 1A  
Skin Irritation, category 2  
Skin Sensitizer, category 1

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

MICROCRYSTALLINE SILICA, BISPHENOL A EPOXY RESIN

### HAZARD STATEMENTS

|   |         |  |
|---|---------|--|
| Flammable Liquid, category 3                              | H226    | 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.                     |
| Carcinogenicity, category 1A                              | H350-1A | May cause cancer.                                  |
| Reproductive Toxicity, category 1A                        | H360-1A | May damage fertility or the unborn child.          |
| 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.  |
| P261         | Avoid breathing dust/fume/gas/mist/vapours/spray.   |
| 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.   |
| 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   |
| P308+P313    | IF exposed or concerned: Get medical advice/attention   |
| P333+313     | If skin irritation or rash occurs: Get medical advice/attention.  |
| P403+233     | Store in a well-ventilated place. Keep container tightly closed.  |

## 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

| <u>Name According to EEC</u> | <u>EINEC No.</u> | <u>CAS-No.</u> | <u>%</u> | <u>Classifications</u> |
|------------------------------|------------------|----------------|----------|------------------------|
| TITANIUM DIOXIDE             | 236-675-5        | 13463-67-7     | 25 - <50 |                        |

|                         |           |            |            |  |   |
|-------------------------|-----------|------------|------------|--|---|
| BISPHENOL A EPOXY RESIN | 500-033-5 | 25068-38-6 | 10 - <25   | H315-317-319-411                         | Aquatic Chronic 2, Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1  |
| POLYSTYRENE             | 500-008-9 | 9003-53-6  | 10 - <25   | H360                                     |   |
| TOLUENE                 | 203-625-9 | 108-88-3   | 2.5 - <10  | H225-304-315-319-332-335-336-361-370-412 | Acute Tox. 4 Inhalation, Aquatic Chronic 3, Asp. Tox. 1, Eye Irrit. 2, Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 1, STOT SE 3 NE, STOT SE 3 RTI |
| META-XYLENE             | 203-576-3 | 108-38-3   | 1.0 - <2.5 | H312-315-332                             |   |
| ETHYL BENZENE           | 202-849-4 | 100-41-4   | 0.1 - <1.0 | H225-304-315-319-332-351-373-412         | Acute Tox. 4 Inhalation, Aquatic Chronic 3, Asp. Tox. 1, Carc. 2, Eye Irrit. 2, Flam. Liq. 2, Skin Irrit. 2, STOT RE 2                              |
| MICROCRYSTALLINE SILICA | 238-878-4 | 14808-60-7 | 0.1 - <1.0 | H350-372                                 | Carc. 1A, STOT RE 1   |

**CAS-No.****M-Factors**

13463-67-7  
25068-38-6  
9003-53-6  
108-88-3  
108-38-3  
100-41-4  
14808-60-7

0  
0  
0  
0  
0  
0  
0

**Remarks:**

CAS No 13463-67-7: Note 10

CAS No. 25068-38-6 identified as CAS No. 1675-54-3, EC No. 216-823-5 under REACH Registration

**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:** No Information

**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)**

No specific advice for end use available.

## 8. Exposure Controls/Personal Protection

**8.1 Control parameters**

**Ingredients with Occupational Exposure Limits (US)**

| <u>Name</u>             | <u>CAS-No.</u> | <u>ACGIH TWA</u> | <u>ACGIH STEL</u> | <u>ACGIH Ceiling</u> |
|-------------------------|----------------|------------------|-------------------|----------------------|
| TITANIUM DIOXIDE        | 13463-67-7     | 10 mg/m3         | N/E               | N/E                  |
| BISPHENOL A EPOXY RESIN | 25068-38-6     | N/E              | N/E               | N/E                  |
| POLYSTYRENE             | 9003-53-6      | N/E              | N/E               | N/E                  |

|                         |            |            |         |     |
|-------------------------|------------|------------|---------|-----|
| TOLUENE                 | 108-88-3   | 20 PPM     | N/E     | N/E |
| META-XYLENE             | 108-38-3   | 100 PPM    | 150 PPM | N/E |
| ETHYL BENZENE           | 100-41-4   | 20 PPM     | 125 ppm |     |
| MICROCRYSTALLINE SILICA | 14808-60-7 | 0.025 MGM3 | N/E     | N/E |

| <u>Name</u>             | <u>CAS-No.</u> | <u>OSHA PEL</u>   | <u>OSHA STEL</u>  |
|-------------------------|----------------|-------------------|-------------------|
| TITANIUM DIOXIDE        | 13463-67-7     | 15 MGM3           | N/E               |
| BISPHENOL A EPOXY RESIN | 25068-38-6     | N/E               | N/E               |
| POLYSTYRENE             | 9003-53-6      | N/E               | N/E               |
| TOLUENE                 | 108-88-3       | 200 ppm           | 560 MGM3, 150 PPM |
| META-XYLENE             | 108-38-3       | 100.00 PPM        | N/E               |
| ETHYL BENZENE           | 100-41-4       | 435 MGM3, 100 PPM | 445 MGM3, 125 PPM |
| MICROCRYSTALLINE SILICA | 14808-60-7     | 0.05 MGM3         | 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

**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

|  |                                |
|--|--------------------------------|
| <b>Appearance:</b>                         | Viscous Liquid, Various Colors |
| <b>Physical State</b>                      | Liquid                         |
| <b>Odor</b>                                | Epoxy                          |
| <b>Odor threshold</b>                      | N/D                            |
| <b>pH</b>                                  | N/D                            |
| <b>Melting point / freezing point (°C)</b> | N/D                            |
| <b>Boiling point/range (°C)</b>            | 176 F (80 C) - 513 F (267 C)   |
| <b>Flash Point (°C)</b>                    | 91F (33C)                      |
| <b>Evaporation rate</b>                    | Slower Than Ether              |

|  |                  |
|--|------------------|
| Flammability (solid, gas)                    | Not determined   |
| Upper/lower flammability or explosive limits | 0.9 - 7.1        |
| 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       | Not determined   |
| 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:                      | 170  |
| Specific Gravity (g/cm <sup>3</sup> ) | 1.94 |

# 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 (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

#### Acute Toxicity:

Oral LD50: N/D

Inhalation LC50: N/D

Irritation: Eye Irritation and Skin Irritation, category 2

Corrosivity: Unknown

Sensitization: Skin Sensitizer, category 1

Repeated dose toxicity: Unknown

Carcinogenicity: Carcinogenicity, category 1A

Mutagenicity: Unknown

Toxicity for reproduction: Reproductive Toxicity, category 1A

STOT-single exposure: Unknown

STOT-repeated exposure: Unknown

Aspiration hazard: Unknown

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:

| <u>CAS-No.</u> | <u>Chemical Name</u>    | <u>Oral LD50</u>        | <u>Dermal LD50</u>          | <u>Vapor LC50</u>               | <u>Gas LC50</u> | <u>Dust/Mist LC50</u> |
|----------------|-------------------------|-------------------------|-----------------------------|---------------------------------|-----------------|-----------------------|
| 13463-67-7     | TITANIUM DIOXIDE        | 25000 mg/kg, oral (rat) | Not Available               | Not Available                   | No Information  | No Information        |
| 25068-38-6     | BISPHENOL A EPOXY RESIN | 11400 mg/kg, rat, oral  | 23000 mg/kg, dermal, rabbit | >20 mL/kg skin, sensitizer      |                 |                       |
| 9003-53-6      | POLYSTYRENE             | Not Available           |                             | Not Available                   | 0.000           | 0.000                 |
| 108-88-3       | TOLUENE                 | 5000 mg/kg rat oral     | 12267 mg/kg, dermal, rabbit | 8000 ppm/4 hrs, rat, inhalation | 0.000           | 0.000                 |
| 108-38-3       | META-XYLENE             | Not Available           | Not Available               | Not Available                   | 0.000           | 0.000                 |
| 100-41-4       | ETHYL BENZENE           | 3500 mg/kg rat, oral    | >5000 mg/l, dermal rabbit   | 17.2 mg/L Inh, Rat, 4Hr         | 0.000           | 0.000                 |
| 14808-60-7     | MICROCRYSTALLINE SILICA | 22500 mg/kg             | Not Available               | Not Available                   | 0.000           | 0.000                 |

#### Additional Information:

This product may contain Ethyl Benzene, which is listed by IARC as possibly carcinogenic to humans (Group 2B). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals. This product contains silica which is classified by IARC as a known human carcinogen (Group 1). Crystalline silica is known to cause silicosis. The classification(s) is/are relevant when exposed to these respirable substances in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

## 12. Ecological Information

### 12.1 Toxicity:

|                      |         |
|----------------------|---------|
| EC50 48hr (Daphnia): | Unknown |
| IC50 72hr (Algae):   | Unknown |
| LC50 96hr (fish):    | 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

| <u>CAS-No.</u> | <u>Chemical Name</u>    | <u>EC50 48hr</u>         | <u>IC50 72hr</u>       | <u>LC50 96hr</u>         |
|----------------|-------------------------|--------------------------|------------------------|--------------------------|
| 13463-67-7     | TITANIUM DIOXIDE        | No information           | No information         | No information           |
| 25068-38-6     | BISPHENOL A EPOXY RESIN | 2.1 mg/l (daphnia)       | 11 mg/l (algae)        | 1.3 mg/l (fish)          |
| 9003-53-6      | POLYSTYRENE             | No information           | No information         | No information           |
| 108-88-3       | TOLUENE                 | 6 mg/l (Daphnia magna)   | 12.5 mg/L (Algae)      | 5.8 mg/L (Fish)          |
| 108-38-3       | META-XYLENE             | No information           | No information         | No information           |
| 100-41-4       | ETHYL BENZENE           | 1.8 mg/l (Daphnia Magna) | 4.6 mg/l (Green Algae) | 4.2 mg/l (Rainbow Trout) |
| 14808-60-7     | MICROCRYSTALLINE SILICA | No information           | No information         | No information           |

## 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  | III            |
| 14.5 Environmental hazards  | No Information |
| 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

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



**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, Reproductive toxicity, Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Serious eye damage or eye irritation

**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:

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>%</u> |
|----------------------|----------------|----------|
| TOLUENE              | 108-88-3       | 5.03     |
| META-XYLENE          | 108-38-3       | 1.21     |
| ETHYL BENZENE        | 100-41-4       | 0.5      |

**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:

No TSCA 12(b) components exist in this product.

**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.

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|----------------------|----------------|
| BARITE               | 13462-86-7     |
| TALC                 | 14807-96-6     |

**Pennsylvania Right-To-Know**

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

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|----------------------|----------------|
| BARITE               | 13462-86-7     |
| TALC                 | 14807-96-6     |
| YELLOW IRON OXIDE    | 51274-00-1     |
| YELLOW PIGMENT       | 31837-42-0     |
| COLOR PIGMENT        | 5567-15-7      |

**CALIFORNIA PROPOSITION 65**

WARNING: Cancer and Reproductive Harm -- [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**International Regulations: As follows -****\* Canadian DSL:**

All chemical ingredients included on inventory (DSL)

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.                                |
| H304 | May be fatal if swallowed and enters airways.                      |
| 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.                                  |
| H336 | May cause drowsiness or dizziness.                                 |
| H350 | May cause cancer.  |
| H351 | Suspected of causing cancer.                                       |
| H360 | May damage fertility or the unborn child.                          |
| H361 | Suspected of damaging fertility or the unborn child.               |
| H370 | Causes damage to organs.   |
| H372 | Causes damage to organs through prolonged or repeated exposure.    |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects.                   |
| H412 | Harmful 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.

