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

1.1 Product Identifier

Product Name: CARBOGUARD 553 PART A

Revision Date: 12/30/2019

Supercedes Date: 12/18/2018

Component of multicomponent industrial coatings - Industrial use.

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.3 Details of the supplier of the safety data sheet

Manufacturer: Carboline Company
2150 Schuetz Road
St. Louis, MO USA 63146

Regulatory / Technical Information:
Contact Carboline Technical Services at 1-800-848-4645

Datasheet Produced by: Alotta, Vicki - ehs@stoncor.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

Allergic effects

2.2 Label elements

Symbol(s) of Product

HazSymbols

Signal Word

Named Chemicals on Label

HAZARD STATEMENTS
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

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>TITANIUM DIOXIDE</td>
<td>2.5 - &lt;10</td>
</tr>
<tr>
<td>770-35-4</td>
<td>PROPYLENE GLYCOL PHENYL ETHER</td>
<td>2.5 - &lt;10</td>
</tr>
<tr>
<td>107-98-2</td>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER</td>
<td>1.0 - &lt;2.5</td>
</tr>
</tbody>
</table>

CAS-No. GHS Symbols   GHS Hazard Statements   M-Factors
13463-67-7 GHS07      H319                   0
770-35-4 GHS02-GHS07  H226-336                0
107-98-2

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

Irritating to eyes and skin. May be harmful if swallowed.

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

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Cool containers / tanks with water spray. The product is not flammable.
6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Evacuate personnel to safe areas. 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.

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further 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. Ensure all equipment is electrically grounded before beginning transfer operations. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation/personal protection. Avoid breathing vapors, mist or gas. 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: Do not freeze.

STORAGE CONDITIONS: Do not freeze. Keep containers tightly closed in a dry, cool and well-ventilated place.

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)

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>ACGIH TWA</th>
<th>ACGIH STEL</th>
<th>ACGIH Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>10 mg/m³</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL PHENYL ETHER</td>
<td>770-35-4</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER</td>
<td>107-98-2</td>
<td>50 PPM</td>
<td>100 PPM</td>
<td>N/E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>OSHA PEL</th>
<th>OSHA STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>15 MGM3</td>
<td>N/E</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL PHENYL ETHER</td>
<td>770-35-4</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER</td>
<td>107-98-2</td>
<td>360 MGM3, 100 540 MGM3, 150 PPM</td>
<td></td>
</tr>
</tbody>
</table>

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous Liquid, Various Colors</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>N/D</td>
</tr>
<tr>
<td>pH</td>
<td>N/D</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>32°F (0°C)</td>
</tr>
<tr>
<td>Boiling point/ range</td>
<td>173°F (78°C) - 538°F (281°C)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;201°F (93°C)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Slower Than Ether</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>0.6 - 24.6</td>
</tr>
<tr>
<td>Vapour Pressure, mmHg</td>
<td>N/D</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Heavier than Air</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>N/D</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature °C</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature °C</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Unknown</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

9.2 Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC Content g/l</td>
<td>150</td>
</tr>
<tr>
<td>Specific Gravity (g/cm³)</td>
<td>1.31</td>
</tr>
</tbody>
</table>
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
Do not freeze.

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: 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:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Vapor LC50</th>
<th>Gas LC50</th>
<th>Dust/Mist LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>TITANIUM DIOXIDE</td>
<td>25000 mg/kg, oral (rat)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>No Information</td>
<td>No Information</td>
</tr>
</tbody>
</table>
Additional Information:
No Information

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

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>EC50 48hr</th>
<th>IC50 72hr</th>
<th>LC50 96hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>13463-67-7</td>
<td>TITANIUM DIOXIDE</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>770-35-4</td>
<td>PROPYLENE GLYCOL PHENYL ETHER</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>107-98-2</td>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER</td>
<td>23300 mg/l (Water flea)</td>
<td>No information</td>
<td>20800 mg/l (Fish)</td>
</tr>
</tbody>
</table>

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
None

14.2 UN proper shipping name
Not Regulated

Technical name
N/A

14.3 Transport hazard class(es)
None

Subsidiary shipping hazard
N/A

14.4 Packing group
N/A

14.5 Environmental hazards
Unknown

14.6 Special precautions for user
Unknown

EmS-No.:
N/A

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:

None Known

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.

No Sara 313 components exist in this product.

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.

Chemical Name  CAS-No.

WATER  7732-18-5
ALKYL PHENOL POLYETHER  TRADE SECRET
NEPHELINE SYENITE  37244-96-5
ADDITIVE  TRADE SECRET

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

Chemical Name  CAS-No.
WATER 7732-18-5
ALKYL PHENOL POLYETHER TRADE SECRET
NEPHELINE SYENITE 37244-96-5
ADDITIVE TRADE SECRET
YELLOW IRON OXIDE 51274-00-1

CALIFORNIA PROPOSITION 65

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

International Regulations: As follows -

* Canadian DSL:
This product contains one or several components listed in the Canadian NDSL list.

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:
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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.