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

1.1 Product Identifier

Product Name: FORTIFIER HT

Revision Date: 08/19/2019

Supercedes Date: 06/04/2019

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 Company
2150 Schuetz Road
St. Louis, MO USA 63146

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

Datasheet Produced by: Schlereth, Ken - 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

Hazardous to the aquatic environment, Chronic, category 2
Flammable Liquid, category 3
STOT, single exposure, category 3, NE
STOT, single exposure, category 3, RTI
Skin Corrosion, category 1

2.2 Label elements

Symbol(s) of Product

Signal Word
Danger

Named Chemicals on Label
AROMATIC HYDROCARBON

HAZARD STATEMENTS
Flammable Liquid, category 3
H226
Flammable liquid and vapour.

Skin Corrosion, category 1
H314-1
Causes severe skin burns and eye damage.

STOT, single exposure, category 3, RTI
H335
May cause respiratory irritation.

STOT, single exposure, category 3, NE
H336
May cause drowsiness or dizziness.

Hazardous to the aquatic environment, Chronic, category 2
H411
Toxic to aquatic life with long lasting effects.

**PRECAUTION PHRASES**

P210
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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.

P301+330+331
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304+340
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P38
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

P363
Wash contaminated clothing before reuse.

P391
Collect spillage.

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**

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-95-6</td>
<td>AROMATIC HYDROCARBON</td>
<td>75 - 100</td>
</tr>
<tr>
<td>919-30-2</td>
<td>3-AMINOPROPYLTRIETHOXYSILANE</td>
<td>10 - &lt;25</td>
</tr>
<tr>
<td>100-41-4</td>
<td>ETHYL BENZENE</td>
<td>0.1 - &lt;1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>GHS Symbols</th>
<th>GHS Hazard Statements</th>
<th>M-Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-95-6</td>
<td>GHS02-GHS07-GHS08-GHS09</td>
<td>H226-304-315-319-332-335-336-411</td>
<td>0</td>
</tr>
<tr>
<td>919-30-2</td>
<td>GHS05-GHS07</td>
<td>H302-314-H318</td>
<td>0</td>
</tr>
<tr>
<td>100-41-4</td>
<td>GHS02-GHS07-GHS08</td>
<td>H225-304-315-319-332-351-373-412</td>
<td>0</td>
</tr>
</tbody>
</table>

**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

Causes burns. May be harmful if swallowed. Corrosive after repeated contact with skin and mucous membranes.

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

Immediate medical attention is required.
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:** Combustible Liquid. Provide adequate ventilation. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

#### 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. Combustible material. Cool containers / tanks with water spray.

### 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
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. Do not breathe vapours or spray mist. 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. 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)**

<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>AROMATIC HYDROCARBON</td>
<td>64742-95-6</td>
<td>300.0 PPM</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>
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:** Ensure that eyewash stations and safety showers are close to the workstation location. 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:** No Information

**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:** Clear Liquid
- **Physical State:** Liquid
- **Odor:** Solvent
- **Odor threshold:** N/D
- **pH:** N/D
- **Melting point / freezing point (°C):** N/D
- **Boiling point/range:** 173 F (78 C) - 428 F (220 C)
- **Flash Point:** 108F (42C)
- **Evaporation rate:** Slower Than Ether
- **Flammability (solid, gas):** Not determined
- **Upper/lower flammability or explosive limits:** 0.9 - 19.0
- **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: 780
Specific Gravity (g/cm3) 0.88

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:

- Skin Corrosion, category 1

Corrosivity:

- Unknown

Sensitization:

- Unknown

Repeated dose toxicity:

- Unknown

Carcinogenicity:

- Unknown

Mutagenicity:

- Unknown

Toxicity for reproduction:

- Unknown

STOT-single exposure:

- STOT, single exposure, category 3, NE & RTI

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>64742-95-6</td>
<td>AROMATIC HYDROCARBON</td>
<td>4700 mg/kg, oral, rat</td>
<td>Not Available</td>
<td>3670 ppm/8 hours, rat, inhalation</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>919-30-2</td>
<td>3-AMINOPROPYLTRIETHOXYSLANE</td>
<td>1505 mg/kg, oral, rat</td>
<td>4117 mg/kg, dermal</td>
<td>Not Available</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>100-41-4</td>
<td>ETHYL BENZENE</td>
<td>3500 mg/kg rat, oral</td>
<td>&gt;5000 mg/l, dermal rabbit</td>
<td>17.2 mg/L Inh, Rat, 4Hr</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

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.

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>64742-95-6</td>
<td>AROMATIC HYDROCARBON</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>919-30-2</td>
<td>3-AMINOPROPYLTRIETHOXYLSILANE</td>
<td>331 mg/l (daphnia)</td>
<td>1000 mg/l (algae)</td>
<td>935 mg/l (Zebra Fish)</td>
</tr>
<tr>
<td>100-41-4</td>
<td>ETHYL BENZENE</td>
<td>1.8 mg/l (Daphnia Magna)</td>
<td>4.6 mg/l (Green Algae)</td>
<td>4.2 mg/l (Rainbow Trout)</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 | UN3469
14.2 UN proper shipping name | Paint, Flammable, Corrosive
14.3 Technical name | N/A
14.4 Transport hazard class(es) | 3
14.5 Subsidiary shipping hazard | 8
14.6 Packing group | III
14.7 Environmental hazards | Unknown
14.8 Special precautions for user | Unknown
14.9 EmS-No.: | F-E, S-C
14.10 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), Skin Corrosion or 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:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
</tr>
</tbody>
</table>
**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:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORANOSILANE ESTER</td>
<td>919-30-2</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORANOSILANE ESTER</td>
<td>919-30-2</td>
</tr>
</tbody>
</table>

**Pennsylvania Right-To-Know**

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORANOSILANE ESTER</td>
<td>919-30-2</td>
</tr>
</tbody>
</table>

**CALIFORNIA PROPOSITION 65**

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

**International Regulations: As follows -**

* Canadian DSL:

All chemical ingredients included on inventory (DSL)

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.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H322 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
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.