



Safety Data Sheet

prepared to UN GHS Revision 3

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

- 1.1 Product Identifier** 0360S1NL
- Product Name:** THERMALINE 4001 **Revision Date:** 05/30/2015
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** Monocomponent industrial coating - Industrial use. **Supersedes Date:** 29/05/2015
- 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

Acute Toxicity, Inhalation, category 4
Flammable Liquid, category 3
Skin Irritation, category 2

2.2 Label elements

Symbol(s) of Product



Signal Word

Warning

Named Chemicals on Label

ORTHO-XYLENE, ETHYL BENZENE, PARA-XYLENE, META-XYLENE, METHYL N-AMYL KETONE

GHS HAZARD STATEMENTS

| | | |
|--|------|------------------------------|
| Flammable Liquid, category 3 | H226 | Flammable liquid and vapour. |
| Skin Irritation, category 2 | H315 | Causes skin irritation. |
| Acute Toxicity, Inhalation, category 4 | H332 | Harmful if inhaled. |

GHS PRECAUTION PHRASES

| | |
|----------|--|
| P210 | Keep away from heat/sparks/open flames/hot surfaces. – No smoking. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P332+313 | If skin irritation occurs: Get medical advice/attention. |
| P403+233 | Store in a well-ventilated place. Keep container tightly closed. |

2.3 Other hazards

Not applicable

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>CAS-No.</u> | <u>Chemical Name</u> | <u>%</u> |
|----------------|-----------------------------|----------|
| 108-38-3 | META-XYLENE | 2.5-10 |
| 100-41-4 | ETHYL BENZENE | 2.5-10 |
| 66402-68-4 | ANHYDROUS ALUMINUM SILICATE | 2.5-10 |
| 7429-90-5 | ALUMINUM (DUST OR FUME) | 2.5-10 |
| 68186-91-4 | COPPER CHROMITE BLACK | 2.5-10 |
| 106-42-3 | PARA-XYLENE | 2.5-10 |
| 95-47-6 | ORTHO-XYLENE | 2.5-10 |
| 64742-94-5 | AROMATIC HYDROCARBON | 1.0-2.5 |
| 110-43-0 | METHYL N-AMYL KETONE | 1.0-2.5 |
| 108-88-3 | TOLUENE | 0.1-1.0 |

| <u>CAS-No.</u> | <u>GHS Symbols</u> | <u>GHS Hazard Statements</u> | <u>M-Factors</u> |
|----------------|--------------------|------------------------------|------------------|
| 108-38-3 | GHS02-GHS07 | H226-312-315-332 | 0 |
| 100-41-4 | GHS02-GHS07 | H225-332 | 0 |
| 66402-68-4 | GHS07 | H315-319-335 | 0 |
| 7429-90-5 | GHS02 | H261 | 0 |
| 68186-91-4 | | | 0 |
| 106-42-3 | GHS02-GHS07-GHS08 | H226-312-315-332-335-371 | 0 |
| 95-47-6 | GHS02-GHS07 | H226-312-315-332 | 0 |
| 64742-94-5 | GHS08 | H304 | 0 |
| 110-43-0 | GHS02-GHS07 | H226-302-332 | 0 |
| 108-88-3 | GHS02-GHS07-GHS08 | H225-315-319-336-361-373 | 0 |

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.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

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.

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. Flammable.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. 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.

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

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). 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 use sparking tools. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation/personal protection.

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>%</u> | <u>ACGIH TLV- TWA</u> | <u>ACGIH TLV- STEL</u> | <u>OSHA PEL- TWA</u> | <u>OSHA PEL- CEILING</u> | <u>OEL Note</u> |
|-----------------------------|----------|---------------------------|----------------------------|--------------------------|------------------------------|-----------------|
| META-XYLENE | 2.5-10 | 100 PPM | 150 PPM | 435 MG/M3 | N/E | |
| ETHYL BENZENE | 2.5-10 | 20 PPM | N/E | 435 MGM3 | N/E | |
| ANHYDROUS ALUMINUM SILICATE | 2.5-10 | 10.0 MG/M3 | N/E | 5.0 MG/M3 | N/E | |
| ALUMINUM (DUST OR FUME) | 2.5-10 | 10 MG/M3 (metal dust) | N/E | 15 MG/M3 " " " " " | N/E | |
| COPPER CHROMITE BLACK | 2.5-10 | 0.5 MGM3 | NE | 1 MGM3 | NE | |
| PARA-XYLENE | 2.5-10 | 100 PPM | 150 PPM | 435 MGM3 | N/E | |
| ORTHO-XYLENE | 2.5-10 | 100 PPM | 150 PPM | 435 MG/M3 | N/E | |
| AROMATIC HYDROCARBON | 1.0-2.5 | N/E | N/E | N/E | N/E | |
| METHYL N-AMYL KETONE | 1.0-2.5 | 50 PPM | N/E | 465 MG/M3 | N/E | |
| TOLUENE | 0.1-1.0 | 20 PPM | N/E | 375 MGM3 | N/E | |

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.

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

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: | Grey Liquid, Low Viscosity |
| Physical State | Liquid |
| Odor | Aromatic |
| Odor threshold | |
| pH | N/D |
| Melting point / freezing point (°C) | N/D |
| Boiling point/range (°C) | 149 F (65 C) - 424 F (218 C) |
| Flash Point, (°C) | 27 |
| Evaporation rate | |
| Flammability (solid, gas) | |
| Upper/lower flammability or explosive limits | Not determined |
| Vapour Pressure, mmHg | N/D |
| Vapour density | |
| Relative density | |
| Solubility in / Miscibility with water | N/D |
| Partition coefficient: n-octanol/water | |
| Auto-ignition temperature (°C) | |
| Decomposition temperature (°C) | |
| Viscosity | Unknown |
| Explosive properties | |
| Oxidising properties | |

9.2 Other information

| | |
|---------------------------------|-------|
| VOC Content g/l: | 408 |
| Specific Gravity (g/cm3) | 1.523 |

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 (NO_x), 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

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> |
|----------------|-----------------------------|----------------------|---------------------------|-------------------------|
| 108-38-3 | META-XYLENE | Not Available | | Not Available |
| 100-41-4 | ETHYL BENZENE | 3500 mg/kg rat, oral | >5000 mg/l, dermal rabbit | 17.2 mg/L Inh, Rat, 4Hr |
| 66402-68-4 | ANHYDROUS ALUMINUM SILICATE | Not Available | | Not Available |
| 7429-90-5 | ALUMINUM (DUST OR FUME) | Not Available | | Not Available |

| | | | |
|------------|-----------------------|--------------------------|--|
| 68186-91-4 | COPPER CHROMITE BLACK | 10001 MG/L, ORAL, RAT | NOT AVAILABLE |
| 106-42-3 | PARA-XYLENE | Not Available | Not Available |
| 95-47-6 | ORTHO-XYLENE | Not Available | Not Available |
| 64742-94-5 | AROMATIC HYDROCARBON | Not Available | Not Available |
| 110-43-0 | METHYL N-AMYL KETONE | 1670 mg/kg rat oral | 2000 ppm, 4 hours |
| 108-88-3 | TOLUENE | 5000 mg/kg rat oral | 12267 mg/kg, dermal, rabbit 8000 ppm/4 hrs, rat, inhalation |

Additional Information:

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

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> |
|----------------|-----------------------------|------------------------|-------------------|------------------|
| 108-38-3 | META-XYLENE | No information | No information | No information |
| 100-41-4 | ETHYL BENZENE | No information | No information | No information |
| 66402-68-4 | ANHYDROUS ALUMINUM SILICATE | No information | No information | No information |
| 7429-90-5 | ALUMINUM (DUST OR FUME) | No information | No information | No information |
| 68186-91-4 | COPPER CHROMITE BLACK | No information | No information | No information |
| 106-42-3 | PARA-XYLENE | No information | No information | No information |
| 95-47-6 | ORTHO-XYLENE | No information | No information | No information |
| 64742-94-5 | AROMATIC HYDROCARBON | No information | No information | No information |
| 110-43-0 | METHYL N-AMYL KETONE | 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) |

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 | UN1263 |
| 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 | 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

- 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:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

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> |
|-------------------------|----------------|
| META-XYLENE | 108-38-3 |
| ETHYL BENZENE | 100-41-4 |
| ALUMINUM (DUST OR FUME) | 7429-90-5 |
| PARA-XYLENE | 106-42-3 |
| ORTHO-XYLENE | 95-47-6 |
| TOLUENE | 108-88-3 |

Toxic Substances Control Act:

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

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|---|----------------|
| No TSCA 12(b) components exist in this product. | |

U.S. Clean Air Act:

EPA Coating Category:
EPA VOC Content Limit (g/l):
Product VOC Content (g/l)
Thinning Recommendations:
Application Recommendations:

Harmful if swallowed.

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> |
|----------------------|----------------|
| SILICONE RESIN | TRADE SECRET |
| HEMATITE | 1317-60-8 |

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> |
|----------------------|----------------|
| HEMATITE | 1317-60-8 |
| SILICONE RESIN | TRADE SECRET |
| SILICONE RESIN | TRADE SECRET |

California Proposition 65:

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|----------------------|----------------|
| ETHYL BENZENE | 100-41-4 |
| NAPHTHALENE | 91-20-3 |
| BENZENE | 71-43-2 |

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

| <u>Chemical Name</u> | <u>CAS-No.</u> |
|----------------------|----------------|
| TOLUENE | 108-88-3 |
| METHYL ALCOHOL | 67-56-1 |
| BENZENE | 71-43-2 |

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. |
| H261 | In contact with water releases flammable gas. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H371 | May cause damage to organs. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

Reasons for revision

No Information

No Information

