



**Safety Data Sheet**  
 prepared to UN GHS Revision 3

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

- 1.1 Product Identifier** 4700S1NL
- Product Name:** THERMALINE 4700      **Revision Date:** 05/30/2015
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**      **Supersedes Date:** 29/05/2015
- Monocomponent industrial coating - 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

Eye Irritation, category 2  
 Flammable Liquid, category 3  
 Skin Irritation, category 2

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Warning

### Named Chemicals on Label

### GHS HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Eye Irritation, category 2	H319	Causes serious eye irritation.

### GHS PRECAUTION PHRASES

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.
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>
13463-67-7	TITANIUM DIOXIDE	25-50
8007-18-9	NICKEL ANTIMONY COMPOUND	25-50
1345-16-0	COBALT COMPOUND	25-50
68186-91-4	COPPER CHROMITE BLACK	10-25
108-38-3	META-XYLENE	10-25
68186-90-3	CHROME ANTIMONY COMPOUND	2.5-10
106-42-3	PARA-XYLENE	2.5-10
100-41-4	ETHYL BENZENE	2.5-10
12001-26-2	MICA	2.5-10
95-47-6	ORTHO-XYLENE	2.5-10
64742-94-5	AROMATIC HYDROCARBON	2.5-10
78-83-1	ISOBUTANOL	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>
13463-67-7			0
8007-18-9			0
1345-16-0			0
68186-91-4			0
108-38-3	GHS02-GHS07	H226-312-315-332	0
68186-90-3			0
106-42-3	GHS02-GHS07-GHS08	H226-312-315-332-335-371	0
100-41-4	GHS02-GHS07	H225-332	0
12001-26-2	GHS07	H319-335	0
95-47-6	GHS02-GHS07	H226-312-315-332	0
64742-94-5	GHS08	H304	0
78-83-1	GHS02-GHS05-GHS07	H226-315-318-335-336	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, 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.

### 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. 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>
TITANIUM DIOXIDE	25-50	10 MGM3	N/E	10 MGM3	N/E	
NICKEL ANTIMONY COMPOUND	25-50	0.5 MGM3	N/E	0.5 MGM3	N/E	
COBALT COMPOUND	25-50	0.02 MGM3	NE	.05 MG/M3	NE	
COPPER CHROMITE BLACK	10-25	0.5 MGM3	NE	1 MGM3	NE	
META-XYLENE	10-25	100 PPM	150 PPM	435 MG/M3	N/E	
CHROME ANTIMONY COMPOUND	2.5-10	0.5 MG/M3	N/E	0.5 MG/M3	N/E	
PARA-XYLENE	2.5-10	100 PPM	150 PPM	435 MGM3	N/E	

ETHYL BENZENE	2.5-10	20 PPM	N/E	435 MGM3	N/E
MICA	2.5-10	3 MGM3	N/E	3 MGM3	N/E
ORTHO-XYLENE	2.5-10	100 PPM	150 PPM	435 MG/M3	N/E
AROMATIC HYDROCARBON	2.5-10	N/E	N/E	N/E	N/E
ISOBUTANOL	1.0-2.5	50 PPM	N/E	150 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

<b>Appearance:</b>	Viscous Liquid, Various Colors
<b>Physical State</b>	Liquid
<b>Odor</b>	Solvent
<b>Odor threshold</b>	
<b>pH</b>	N/D
<b>Melting point / freezing point (°C)</b>	N/D
<b>Boiling point/range (°C)</b>	149 F (65 C) - 424 F (218 C)
<b>Flash Point, (°C)</b>	28
<b>Evaporation rate</b>	
<b>Flammability (solid, gas)</b>	
<b>Upper/lower flammability or explosive limits</b>	Not determined
<b>Vapour Pressure, mmHg</b>	N/D
<b>Vapour density</b>	
<b>Relative density</b>	
<b>Solubility in / Miscibility with water</b>	N/D
<b>Partition coefficient: n-octanol/water</b>	
<b>Auto-ignition temperature (°C)</b>	
<b>Decomposition temperature (°C)</b>	

**Viscosity** Unknown

**Explosive properties**

**Oxidising properties**

## 9.2 Other information

**VOC Content g/l:** 456

**Specific Gravity (g/cm<sup>3</sup>)** app. 1.30

## 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: 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>
13463-67-7	TITANIUM DIOXIDE	25000 mg/m3, oral (rat)		Not Available
8007-18-9	NICKEL ANTIMONY COMPOUND	10000 mg/kg oral rat		Not Available
1345-16-0	COBALT COMPOUND	10001 MG/KG, ORAL, RAT		NOT AVAILABLE
68186-91-4	COPPER CHROMITE BLACK	10001 MG/L, ORAL, RAT		NOT AVAILABLE
108-38-3	META-XYLENE	Not Available		Not Available
68186-90-3	CHROME ANTIMONY COMPOUND	>10000 MG/KG, ORAL, RAT		NOT AVAILABLE
106-42-3	PARA-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
12001-26-2	MICA	Not Available		Not Available
95-47-6	ORTHO-XYLENE	Not Available		Not Available
64742-94-5	AROMATIC HYDROCARBON	Not Available		Not Available
78-83-1	ISOBUTANOL	2500 mg/kg, oral, rat	3404 mg/kg, dermal, rat	8000 ppm/4h, rat, INH
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>
13463-67-7	TITANIUM DIOXIDE	No information	No information	No information
8007-18-9	NICKEL ANTIMONY COMPOUND	No information	No information	No information
1345-16-0	COBALT COMPOUND	No information	No information	No information
68186-91-4	COPPER CHROMITE BLACK	No information	No information	No information
108-38-3	META-XYLENE	No information	No information	No information
68186-90-3	CHROME ANTIMONY COMPOUND	No information	No information	No information
106-42-3	PARA-XYLENE	No information	No information	No information
100-41-4	ETHYL BENZENE	No information	No information	No information
12001-26-2	MICA	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
78-83-1	ISOBUTANOL	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. 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>
NICKEL ANTIMONY COMPOUND	8007-18-9
META-XYLENE	108-38-3
PARA-XYLENE	106-42-3
ETHYL BENZENE	100-41-4
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>
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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
SILICONE RESIN	TRADE SECRET

**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>
SILICONE RESIN	TRADE SECRET
SILICONE RESIN	TRADE SECRET
IRON OXIDE	1332-37-2

**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>
TITANIUM DIOXIDE	13463-67-7
NICKEL ANTIMONY COMPOUND	8007-18-9
ETHYL BENZENE	100-41-4
NAPHTHALENE	91-20-3
MICROCRYSTALLINE SILICA	14808-60-7
METHYL ISOBUTYL KETONE	108-10-1
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>
METHYL ALCOHOL	67-56-1
TOLUENE	108-88-3
METHYL ISOBUTYL KETONE	108-10-1
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.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.

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