carboline

Safety Data Sheet
prepared to UN GHS Revision 3

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

1.1 Product Identifier 4904S1NL

Product Name: THERMALINE 4900 VOC ALUMINUM

Revision Date: 02/18/2016

Supercedes Date: New SDS

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

Carcinogenicity, category 1A
Eye Irritation, category 2
Flammable Liquid, category 3
Germ Cell Mutagenicity, category 1A
Reproductive Toxicity, category 2
STOT, single exposure, category 3, RTI
Skin Irritation, category 2
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product

Signal Word

Danger

Named Chemicals on Label

DICYCLOHEXYL PHTHALATE, PARACHLOROBENZO TRIFLUORIDE, PARA-XYLENE, TOLUENE

GHS 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.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Germ Cell Mutagenicity, category 1A	H340-1A	May cause genetic defects.
Carcinogenicity, category 1A	H350-1A	May cause cancer.
Reproductive Toxicity, category 2	H361	Suspected of damaging fertility or the unborn child.

GHS 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.
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.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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
P332+313	If skin irritation occurs: 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

CAS-No.	Chemical Name	%
98-56-6	PARACHLOROBENZO TRIFLUORIDE	25-50
7429-90-5	ALUMINUM (DUST OR FUME)	10-25
64742-94-5	AROMATIC HYDROCARBON	2.5-10
64742-95-6	AROMATIC HYDROCARBON	2.5-10
108-38-3	META-XYLENE	2.5-10
84-61-7	DICYCLOHEXYL PHTHALATE	2.5-10
106-42-3	PARA-XYLENE	1.0-2.5
100-41-4	ETHYL BENZENE	1.0-2.5
108-88-3	TOLUENE	0.1-1.0

CAS-No.	GHS Symbols	GHS Hazard Statements	M-Factors
98-56-6	GHS02-GHS07	H226-315-317-319-335	0
7429-90-5	GHS02	H261	0
64742-94-5	GHS08	H304	0
64742-95-6	GHS02-GHS08-GHS09	H226-340-350-411	0
108-38-3	GHS02-GHS07	H226-312-315-332	0
84-61-7	GHS07-GHS08	H317-361-412	0
106-42-3	GHS02-GHS07-GHS08	H226-312-315-332-335-371	0
100-41-4	GHS02-GHS07	H225-332	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, 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. Ensure adequate ventilation. Evacuate personnel to safe areas. Evacuate personnel to safe areas. Remove all sources of ignition. 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)

Name	%	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	OEL Note
PARACHLOROBENZO TRIFLUORIDE	25-50	N/E	N/E	N/E	N/E	
ALUMINUM (DUST OR FUME)	10-25	10 MG/M3 (metal dust)	N/E	15 MG/M3 (total dust)	N/E	
AROMATIC HYDROCARBON	2.5-10	N/E	N/E	N/E	N/E	
AROMATIC HYDROCARBON	2.5-10	N/E	N/E	N/E	N/E	
META-XYLENE	2.5-10	100 PPM	150 PPM	435 MG/M3	N/E	
DICYCLOHEXYL PHTHALATE	2.5-10	N/E	N/E	N/E	N/E	
PARA-XYLENE	1.0-2.5	100 PPM	150 PPM	435 MGM3	N/E	

ETHYL BENZENE	1.0-2.5	20 PPM	N/E	435 MGM3	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:	Viscous Aluminum Colored
Physical State	Liquid
Odor	Solvent
Odor threshold	N/D
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)	37
Evaporation rate	Slower Than Ether
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	0.9 - 10.5
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	Not Determined
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l:	312
Specific Gravity (g/cm3)	1.25

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:	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:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
98-56-6	PARACHLOROBENZO TRIFLUORIDE	6800 mg/kg, oral, rat	3300 mg/kg, dermal, rabbit	4479 ppm
7429-90-5	ALUMINUM (DUST OR FUME)	5001 mg/kg, oral, rat	Not Available	888 mg/m3, Inh, Rat
64742-94-5	AROMATIC HYDROCARBON	Not Available		Not Available

64742-95-6	AROMATIC HYDROCARBON	4700 mg/kg, oral, rat		3670 ppm/8 hours, rat, inhalation
108-38-3	META-XYLENE	Not Available	Not Available	Not Available
84-61-7	DICYCLOHEXYL PHTHALATE	5000 mg/kg, oral, rat		Not Available
106-42-3	PARA-XYLENE	Not Available	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
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

CAS-No.	Chemical Name	EC50 48hr	IC50 72hr	LC50 96hr
98-56-6	PARACHLOROBENZO TRIFLUORIDE	2 mg/l (Daphnia magna)	No information	3 mg/l (Zebra fish)
7429-90-5	ALUMINUM (DUST OR FUME)	No information	No information	No information
64742-94-5	AROMATIC HYDROCARBON	No information	No information	No information
64742-95-6	AROMATIC HYDROCARBON	No information	No information	No information
108-38-3	META-XYLENE	No information	No information	No information
84-61-7	DICYCLOHEXYL PHTHALATE	2 mg/L (Daphnia)	2 mg/l (Algae)	2 mg/l (Fish)
106-42-3	PARA-XYLENE	No information	No information	No information
100-41-4	ETHYL BENZENE	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:

Chemical Name	CAS-No.
ALUMINUM (DUST OR FUME)	7429-90-5
META-XYLENE	108-38-3
PARA-XYLENE	106-42-3
ETHYL BENZENE	100-41-4
TOLUENE	108-88-3

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:

Chemical Name	CAS-No.

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.
ACRYLIC POLYMER	TRADE SECRET
SILICONE RESIN	TRADE SECRET

Pennsylvania Right-To-Know

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

Chemical Name	CAS-No.
ACRYLIC POLYMER	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:

Chemical Name	CAS-No.
ETHYL BENZENE	100-41-4
NAPHTHALENE	91-20-3
CUMENE	98-82-8
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.

Chemical Name	CAS-No.
METHYL ALCOHOL	67-56-1
TOLUENE	108-88-3
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.
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.
H340	May cause genetic defects.
H350	May cause cancer.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

No Information

No Information

Thermaline® 4900 VOC Aluminum

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Single package silicone acrylic finish (air-drying)
Description	Air-dried coating suitable for high temperature exposures up to 525°F (273°C). Air-drying characteristics allow for faster handling of in-shop applications than with other high-temperature coatings. Heat cure above 300°F (149°C) is acceptable and will impart added strength and integrity to the coating.
Features	• Temperature resistance up to 525°F (273°C) • Air-dried curing capabilities • Single-coat application • Excellent resistance to thermal shock • Good weathering • VOC compliant
Color	Aluminum (C901)
Finish	Semi-Gloss
Primer	Self-priming on stainless steel, aluminum and metalized surfaces. For carbon steel, apply over recommended zinc primer. A mist coat may be required to minimize bubbling over inorganic zinc primers.
Dry Film Thickness	1.5 - 2 mils (38 - 51 microns) per coat Do not exceed 2.5 mils (63 microns) in a single coat.
Solids Content	By Volume 44% +/- 2%
Theoretical Coverage Rate	706 ft²/gal at 1.0 mils (17.3 m²/l at 25 microns) 471 ft²/gal at 1.5 mils (11.5 m²/l at 38 microns) 353 ft²/gal at 2.0 mils (8.7 m²/l at 50 microns) Allow for loss in mixing and application.
VOC Value(s)	Per EPA Method 24: 2.74 lbs/gal (329 g/l) 16 oz/gal of Thinner 236 E: 2.74 lbs/gal (329 g/l) This product contains US EPA VOC-exempt solvent(s).
Topcoats	Not Applicable

SUBSTRATES & SURFACE PREPARATION

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
Steel	SSPC-SP 10 with a 1.0-1.5 (13-25 micron) surface profile when appling direct to metal. When going over a Carboline recommended primer, follow the surface preparation requirements for that primer. * The alignment of aluminum flakes in aluminum-filled finishes is very dependent on application conditions and techniques. Care must be taken to keep conditions as constant as possible to reduce variations in final appearance. It is also advisable to work from a single batch of material since variations can occur from batch to batch. For more information consult Carboline Technical Service Department.

Thermaline® 4900 VOC Aluminum

PRODUCT DATA SHEET

carboline®
Coatings - Linings - Fireproofing

MIXING & THINNING

Mixing	Thoroughly mix to a uniform consistency prior to use.
Thinning	Normally not required. May be thinned up to 16 oz/gal. (12.5%) by volume with Thinner #236E for "hot" applications exceeding 150°F (66°C). Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Spray Application (General)	The following spray equipment has been found suitable for application of this material. Conventional spray application is preferred.
Conventional Spray	Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 0.052" I.D. fluid tip and appropriate air cap. Use adequate air volume for proper equipment operation. Hold gun 10-12" from the surface and at right angles. Lap each pass 50%. Apply 4.0-5.0 wet mils to obtain desired dry film.
Airless Spray	Not recommended
Brush & Roller (General)	Recommended for touch up of small areas or where spray application is not permitted. Avoid excessive re-brushing or re-rolling.
Brush	Use a medium bristle brush.
Roller	Use a short-nap mohair roller cover with solvent resistant core. **Note:** Different application procedures or methods will result in streaky or non-uniform appearance with aluminum containing products.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	55°F (13°C)	40°F (4°C)	40°F (4°C)	0%
Maximum	95°F (35°C)	300°F (149°C)	120°F (49°C)	90%

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

CURING SCHEDULE

Surface Temp.	Dry to Topcoat with Itself	Dry to Touch
77°F (25°C)	4 Hours	1 Hour

These times are based on a 2.0 mils (50 micron) dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. While Thermaline 4900 is an ambient temperature cure coating, optimum performance properties are achieved when final heat cure occurs at 300°F (149°C) after 3 hours. After a 2-hour flash off at 75°F (24°C) allow temperature to increase slowly to 300°F (149°C) and hold it there for approximately 3 hours.

CLEANUP & SAFETY

Cleanup	Use Thinner #2. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Safety	Read and follow all caution statements on this Product Data Sheet and on the SDS for this product. Employ normal workmanlike safety precautions.
Ventilation	When used in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not able to monitor levels, MSHA/NIOSH approved supplied air respirator may be required.
Caution	This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Min. 24 months at 77°F (24°C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	40°F-100°F (4-43°C) 0-90% Relative Humidity
Storage	Store Indoors.
Shipping Weight (Approximate)	1 Gallon - 14 lbs. (6.4 kg) 5 Gallon - 70 lbs. (32 kg)
Flash Point (Setaflash)	102°F (39°C) 98°F (37°C) C901 Aluminum

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.