



Safety Data Sheet

Prepared in Accordance with HCS 29
C.F.R. 1910.1200



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

- 1.1 Product Identifier** 140SA1NL
- Product Name:** RAILPLEX C4 LV URETHANE PART A **Revision Date:** 11/30/2018
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** Component of multicomponent industrial coatings - Industrial use. **Supersedes Date:** New SDS
- 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 +1 703 5273887 (Outside US)

2. Hazard Identification

2.1 Classification of the substance or mixture

Carcinogenicity, category 1A
Eye Irritation, category 2
Flammable Liquid, category 2
STOT, repeated exposure, category 1
STOT, single exposure, category 3, NE
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

danger

Named Chemicals on Label

ACETONE, PARACHLOROBENZO TRIFLUORIDE, N-BUTYL ACETATE, MICROCRYSTALLINE SILICA, AROMATIC HYDROCARBON

HAZARD STATEMENTS

Flammable Liquid, category 2	H225	Highly flammable liquid and vapour.
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, NE	H336	May cause drowsiness or dizziness.
Carcinogenicity, category 1A	H350-1A	May cause cancer.
STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.

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.
P235	Keep cool.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
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.
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
P314	Get medical advice/attention if you feel unwell.
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

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>%</u>
13463-67-7	TITANIUM DIOXIDE	25 - <50

14808-60-7	MICROCRYSTALLINE SILICA	10 - <25
67-64-1	ACETONE	2.5 - <10
123-86-4	N-BUTYL ACETATE	2.5 - <10
98-56-6	PARACHLOROBENZO TRIFLUORIDE	2.5 - <10
123-54-6	2,4-PENTANEDIONE	2.5 - <10
763-69-9	ETHOXYPROPIONATE	1.0 - <2.5
64742-95-6	AROMATIC HYDROCARBON	1.0 - <2.5
12239-87-1	C.I. PIGMENT BLUE 15:2	1.0 - <2.5
142-92-7	HEXYL ACETATE	1.0 - <2.5
100-41-4	ETHYL BENZENE	0.1 - <1.0
122-99-6	2-PHENOXYETHANOL	<0.1

<u>CAS-No.</u>	<u>GHS Symbols</u>	<u>GHS Hazard Statements</u>	<u>M-Factors</u>
13463-67-7			0
14808-60-7	GHS08	H350-372	0
67-64-1	GHS02-GHS07	H225-319-336	0
123-86-4	GHS02-GHS07	H226-336	0
98-56-6	GHS02-GHS07	H226-315-317-319-335	0
123-54-6	GHS02-GHS07	H226-302	0
763-69-9	GHS02	H226	0
64742-95-6	GHS02-GHS07-GHS08-GHS09	H226-304-315-319-332-335-336-411	0
12239-87-1			0
142-92-7	GHS02	H226	0
100-41-4	GHS02-GHS07-GHS08	H225-304-315-319-332-373-412	0
122-99-6	GHS07	H302-319	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.

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, 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**

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 use sparking tools. 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)**

<u>Name</u>	<u>CAS-No.</u>	<u>ACGIH TWA</u>	<u>ACGIH STEL</u>	<u>ACGIH Ceiling</u>
TITANIUM DIOXIDE	13463-67-7	10 MGM3 10 MGM3	N/E	N/E
MICROCRYSTALLINE SILICA	14808-60-7	0.025 MGM3	N/E	N/E
ACETONE	67-64-1	250 PPM	500 PPM	N/E
N-BUTYL ACETATE	123-86-4	50 PPM	150 PPM	N/E
PARACHLOROBENZO TRIFLUORIDE	98-56-6	N/E	N/E	N/E
2,4-PENTANEDIONE	123-54-6	25 PPM	N/E	N/E
ETHOXYPROPIONATE	763-69-9	N/E	N/E	N/E

AROMATIC HYDROCARBON	64742-95-6	300.0 PPM	N/E	N/E
C.I. PIGMENT BLUE 15:2	12239-87-1	N/E	N/E	N/E
HEXYL ACETATE	142-92-7	N/E	N/E	N/E
ETHYL BENZENE	100-41-4	20 PPM	125 ppm	
2-PHENOXYETHANOL	122-99-6	25.0 PPM SKIN	N/E	N/E

<u>Name</u>	<u>CAS-No.</u>	<u>OSHA PEL</u>	<u>OSHA STEL</u>
TITANIUM DIOXIDE	13463-67-7	15 MGM3	N/E
MICROCRYSTALLINE SILICA	14808-60-7	0.05 MGM3	N/E
ACETONE	67-64-1	1800 MGM3, 750 PPM	2400 MGM3, 1000 PPM
N-BUTYL ACETATE	123-86-4	710 MGM3, PPM	150 950 MGM3, 200 PPM
PARACHLOROBENZO TRIFLUORIDE	98-56-6	N/E	N/E
2,4-PENTANEDIONE	123-54-6	N/E	N/E
ETHOXYPROPIONATE	763-69-9	N/E	N/E
AROMATIC HYDROCARBON	64742-95-6	500.0 PPM	N/E
C.I. PIGMENT BLUE 15:2	12239-87-1	N/E	N/E
HEXYL ACETATE	142-92-7	N/E	N/E
ETHYL BENZENE	100-41-4	435 MGM3, PPM	100 545 MGM3, 125 PPM
2-PHENOXYETHANOL	122-99-6	N/E	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: 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:	Viscous Liquid, Various Colors
Physical State	Liquid
Odor	Ketone
Odor threshold	Not Determined
pH	Not Determined
Melting point / freezing point (°C)	Not Determined
Boiling point/range	133 F (56 C) - 595 F (313 C)
Flash Point	12°F (-11°C)
Evaporation rate	Slower Than Ether
Flammability (solid, gas)	N/D
Upper/lower flammability or explosive limits	0.8 - 14.0
Vapour Pressure, mmHg	Not Determined
Vapour density	Heavier than Air
Relative density	N/D
Solubility in / Miscibility with water	Not Determined
Partition coefficient: n-octanol/water	N/D
Auto-ignition temperature (°C)	N/D
Decomposition temperature (°C)	N/D
Viscosity	Not Determined
Explosive properties	N/D
Oxidising properties	N/D

9.2 Other information

VOC Content g/l:	240
Specific Gravity (g/cm³)	approx. 1.28

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 productsCarbon 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:** No information available.**Corrosivity:** No information available.**Sensitization:** No information available.**Repeated dose toxicity:** No information available.**Carcinogenicity:** No information available.**Mutagenicity:** No information available.**Toxicity for reproduction:** No information available.

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>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
13463-67-7	TITANIUM DIOXIDE	25000 mg/kg, oral (rat)	Not Available	Not Available	No Information	No Information
14808-60-7	MICROCRYSTALLINE SILICA	22500 mg/kg	Not Available	Not Available	0.000	0.000
67-64-1	ACETONE	5800 mg/kg, oral, rat	20000 mg/kg, dermal, rabbit	5000 ppm / 1 hr, rat, inh	0.000	0.000
123-86-4	N-BUTYL ACETATE	10760 mg/kg, rat, oral	14112 mg/kg (rabbit)	21 mg/l/4/h, Inh. rat		
98-56-6	PARACHLOROBENZO TRIFLUORIDE	6800 mg/kg, oral, rat	3300 mg/kg, dermal, rabbit	4479 ppm	0.000	0.000
123-54-6	2,4-PENTANEDIONE	55 mg/kg oral, rat	Not Available	10 mg/24 hours rabbit	0.000	0.000
763-69-9	ETHOXYPROPIONATE	5000 mg/kg, oral, rat	4080 mg/kg, dermal, rat	Not Available	0.000	0.000
64742-95-6	AROMATIC HYDROCARBON	4700 mg/kg, oral, rat	Not Available	3670 ppm/8 hours, rat, inhalation	0.000	0.000
142-92-7	HEXYL ACETATE	36230 mg/kg, oral, rat	5000 mg/kg, dermal, rat	Not Available	0.000	0.000
100-41-4	ETHYL BENZENE	3500 mg/kg rat, oral	>5000 mg/l, dermal rabbit	17.2 mg/L Inh, Rat, 4Hr	0.000	0.000
122-99-6	2-PHENOXYETHANOL	1400 mg/kg, oral, rat			0.000	0.000

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. This product contains silica which is classified by IARC as a known human carcinogen (Group 1). Crystalline silica is known to cause silicosis. The classification(s) is/are relevant when exposed to these respirable substances in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information available.

IC50 72hr (Algae): No information available.

LC50 96hr (fish): No information available.

12.2 Persistence and degradability: No information available.

12.3 Bioaccumulative potential: No information available.

12.4 Mobility in soil: No information available.

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: No information available.

<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
14808-60-7	MICROCRYSTALLINE SILICA	No information	No information	No information
67-64-1	ACETONE	No information	No information	100 mg/l (fish-Fathead minnow)
123-86-4	N-BUTYL ACETATE	44 mg/l (Daphnia magna)	674.7 mg/L (Green Algae)	18 mg/l (Fathead minnow)
98-56-6	PARACHLORO BENZO TRIFLUORIDE	2 mg/l (Daphnia magna)	No information	3 mg/l (Zebra fish)
123-54-6	2,4-PENTANEDIONE	No information	No information	No information
763-69-9	ETHOXYPROPIONATE	785 mg/l (daphnia magna)	115 mg/l (algae)	67.65 mg/l (fathead minnow)
64742-95-6	AROMATIC HYDROCARBON	No information	No information	No information
12239-87-1	C.I. PIGMENT BLUE 15:2	No information	No information	No information
142-92-7	HEXYL ACETATE	No information	No information	3.7 mg/L (fish)
100-41-4	ETHYL BENZENE	1.8 mg/l (Daphnia Magna)	4.6 mg/l (Green Algae)	4.2 mg/l (Rainbow Trout)
122-99-6	2-PHENOXYETHANOL	No information	No information	No information

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	II
14.5 Environmental hazards	No information available.
14.6 Special precautions for user	No information available.
EmS-No.:	F-E, S-E
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	No information available.

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), Carcinogenicity, Respiratory or Skin Sensitization, Serious eye damage or eye 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:

<u>Chemical Name</u>	<u>CAS-No.</u>
ETHYL BENZENE	100-41-4

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:

<u>Chemical Name</u>	<u>CAS-No.</u>
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.

<u>Chemical Name</u>	<u>CAS-No.</u>
ACRYLIC COPOLYMER	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>
ACRYLIC COPOLYMER	TRADE SECRET
ADDITIVE	TRADE SECRET

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.
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.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
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.

