



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	C111S1NL	Revision Date:	08/23/2024
Product Name:	C-FLEX 123 AF RED	Supersedes Date:	08/16/2024
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 Global Inc. 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 - regulatory@carboline.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
Acute Toxicity, Oral, category 4
Hazardous to the aquatic environment, Acute, category 1
Hazardous to the aquatic environment, Chronic, category 1
Flammable Liquid, category 2
Respiratory Sensitizer, category 1
Skin Irritation, category 2
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

ORTHO-XYLENE, ETHYL BENZENE, PARA-XYLENE, META-XYLENE, TERT-BUTYL ACETATE, CUPRIC OXIDE (CuO), CUPROUS OXIDE (Cu₂O), GUM ROSIN

HAZARD STATEMENTS

Flammable Liquid, category 2	H225	Highly flammable liquid and vapour.
Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Hazardous to the aquatic environment, Acute, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, Chronic, category 1	H410	Very toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P235	Keep cool.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation 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.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P391	Collect spillage.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to waste treatment/disposal facility in accordance with local, state, and federal regulations.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

Unknown

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous ingredients

<u>Name According to EEC</u>	<u>EINEC No.</u>	<u>CAS-No.</u>	<u>%</u>	<u>Classifications</u>	
CUPROUS OXIDE (Cu ₂ O)	215-270-7	1317-39-1	25 - <50	H302-400-410	Acute Tox. 4 Oral, Aquatic Acute 1, Aquatic Chronic 1
TERT-BUTYL ACETATE	208-760-7	540-88-5	2.5 - <10	H225-332-335-336	Acute Tox. 4 Inhalation, Flam. Liq. 2, STOT SE 3 NE, STOT SE 3 RTI
META-XYLENE	203-576-3	108-38-3	2.5 - <10	H226-312-315-332	Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Flam. Liq. 3, Skin Irrit. 2
GUM ROSIN	232-475-7 232-475-7	8050-09-7	2.5 - <10	H315-317-319-334	
PARA-XYLENE	203-396-5	106-42-3	2.5 - <10	H226-312-315-332	Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Flam. Liq. 3, Skin Irrit. 2
ETHYL BENZENE	202-849-4	100-41-4	2.5 - <10	H225-304-332-373-412	Acute Tox. 4 Inhalation, Aquatic Chronic 3, Asp. Tox. 1, Flam. Liq. 2, STOT RE 2
ZINC OXIDE	215-222-5	1314-13-2	2.5 - <10	H400-410	Aquatic Acute 1, Aquatic Chronic 1
ORTHO-XYLENE	202-422-2	95-47-6	2.5 - <10	H312-315-332	Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Skin Irrit. 2
CUPRIC OXIDE (CuO)	215-269-1	1317-38-0	1.0 - <2.5	H302-400	Acute Tox. 4 Oral, Aquatic Acute 1

CAS-No.

1317-39-1
540-88-5
108-38-3
8050-09-7
106-42-3
100-41-4
1314-13-2
95-47-6
1317-38-0

M-Factors

Remarks: CAS No. 25068-38-6 identified as CAS No. 1675-54-3, EC No. 216-823-5 under REACH Registration

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

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.

FOR SAFETY REASONS NOT TO BE USED: Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

SPECIAL FIREFIGHTING PROCEDURES: In the event of fire, wear self-contained breathing apparatus. Cool containers / tanks with water spray. Flammable.

SPECIAL FIREFIGHTING PROTECTION EQUIPMENT: No Information

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

No 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)

The mixing and application to be in accordance with the technical data sheets.

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>
CUPROUS OXIDE (Cu ₂ O)	1317-39-1	1 MG/M3	NE	N/E
TERT-BUTYL ACETATE	540-88-5	50 PPM	150 PPM	N/E
META-XYLENE	108-38-3	100 PPM	150 PPM	N/E
GUM ROSIN	8050-09-7	N/E	N/E	N/E
PARA-XYLENE	106-42-3	100 PPM	150 PPM	N/E
ETHYL BENZENE	100-41-4	20 PPM	125 ppm	
ZINC OXIDE	1314-13-2	2 MGM3	10 MGM3	N/E
ORTHO-XYLENE	95-47-6	100 PPM	150 PPM	N/E
CUPRIC OXIDE (CuO)	1317-38-0	1 MG/M3	NE	N/E

<u>Name</u>	<u>CAS-No.</u>	<u>OSHA PEL</u>	<u>OSHA STEL</u>
CUPROUS OXIDE (Cu ₂ O)	1317-39-1	1 MG/M3	N/E
TERT-BUTYL ACETATE	540-88-5	950 MGM3, 200 PPM	N/E
META-XYLENE	108-38-3	100.00 PPM	N/E
GUM ROSIN	8050-09-7	N/E	N/E
PARA-XYLENE	106-42-3	100.00 PPM	N/E
ETHYL BENZENE	100-41-4	435 MGM3, 100 PPM	545 MGM3, 125 PPM
ZINC OXIDE	1314-13-2	5 MGM3 5 MGM3 15 MGM3	N/E
ORTHO-XYLENE	95-47-6	100.00 PPM	N/E
CUPRIC OXIDE (CuO)	1317-38-0	1 MG/M3	N/E

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

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.
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:	Red Liquid
Physical State	Liquid
Odor	Solvent
Odor threshold	N/D
pH	N/D
Melting point / freezing point (°C)	N/D
Boiling point/range (°C)	281 F (138 C) - 343 F (173 C)
Flash Point (°C)	65F (18C)
Evaporation rate	Slower Than Ether
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	1.0 - 7.3
Vapour Pressure, mmHg	N/D
Vapour density	Heavier than Air
Relative density	Not determined
Solubility in / Miscibility with water	Insoluble
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:	390
Specific Gravity (g/cm ³)	1.87

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

STOT-single exposure: No Information

STOT-repeated exposure: No Information

Aspiration hazard: No Information

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>
1317-39-1	CUPROUS OXIDE (Cu ₂ O)	470 mg/kg, oral, rat	Not Available	Not Available	0.000	0.000
540-88-5	TERT-BUTYL ACETATE	3160 mg/kg, oral, rat	Not Available	4000 ppm/6 hours, rat inhalation	0.000	0.000
108-38-3	META-XYLENE	No Information	No Information	No Information	No Information	No Information
8050-09-7	GUM ROSIN	2800 mg/kg, oral, rat	> 2000 mg/kg, oral, rat	Not Available	0.000	0.000
106-42-3	PARA-XYLENE	No Information	No Information	No Information	No Information	No Information
100-41-4	ETHYL BENZENE	3500 mg/kg rat, oral	>5000 mg/l, dermal rabbit	17.2 mg/L Inh, Rat, 4Hr	No Information	No Information
1314-13-2	ZINC OXIDE	15000 mg/kg, oral, rat	Not Available	Not Available	0.000	0.000
95-47-6	ORTHO-XYLENE	No Information	No Information	No Information	No Information	No Information

1317-38-0	CUPRIC OXIDE (CuO)	470 mg/kg, oral, rat	Not Available	Not Available	0.000	0.000
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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: Unknown

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>
1317-39-1	CUPROUS OXIDE (Cu ₂ O)	No information	No information	No information
540-88-5	TERT-BUTYL ACETATE	No information	No information	No information
108-38-3	META-XYLENE	No information	No information	No information
8050-09-7	GUM ROSIN	No information	No information	No information
106-42-3	PARA-XYLENE	No information	No information	No information
100-41-4	ETHYL BENZENE	1.8 mg/l (Daphnia Magna)	4.6 mg/l (Green Algae)	4.2 mg/l (Rainbow Trout)
1314-13-2	ZINC OXIDE	No information	No information	No information
95-47-6	ORTHO-XYLENE	No information	No information	No information
1317-38-0	CUPRIC OXIDE (CuO)	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.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Open dumping is prohibited. Pesticide, spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of according to procedures approved by Federal, State or local disposal authorities.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Prior to container disposal, allow any remaining paint residue in the container to air dry. Dispose of the container in accordance with Federal, State or local disposal regulations.

DISPOSAL METHOD: Dispose of material in accordance with applicable federal, state and local regulations.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Remove all sources of ignition. Ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state and federal regulations. Do not incinerate closed containers. Isolate the area and deny entry to unnecessary and unprotected personnel. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state and federal regulations.

14. Transport Information

14.1	UN number	UN 1263
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	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 -

U.S. PESTICIDE LAW

EPA STATEMENT: This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS) and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

EPA PESTICIDE LABEL: WARNING. Causes eye irritation. Harmful if absorbed through the skin. Avoid contact with skin, eyes, or clothing. Wear protective clothing such as gloves, long-sleeved cotton shirt, long pants, and hat. May be fatal if swallowed or inhaled. Do not breathe spray mist. While spraying paint or sanding or sandblasting boat surfaces, wear a mask or a respirator jointly approved by the Mining Enforcement and Safety Administration and the National Institute for Occupational Safety and Health. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

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), Acute Toxicity (any route of exposure), Skin Corrosion or Irritation, Respiratory or Skin Sensitization

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>	<u>%</u>
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CUPROUS OXIDE (Cu ₂ O)	1317-39-1	45
META-XYLENE	108-38-3	9.2
PARA-XYLENE	106-42-3	4
ETHYL BENZENE	100-41-4	3.8
ZINC OXIDE	1314-13-2	3
ORTHO-XYLENE	95-47-6	2.9
CUPRIC OXIDE (CuO)	1317-38-0	2

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:

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>
VINYL 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>
VINYL RESIN	TRADE SECRET

CALIFORNIA PROPOSITION 65

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

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.
H302	Harmful if swallowed.
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.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very 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.