



Safety Data Sheet (SDS)

North American

Revision date:1/17/2014

SECTION 1: Identification

Product identifiers:

Product trade name: SUP-R-CONC* L Permanent Yellow X-48
Company product number: 6C41L201
Other means of identification: Not Available

Recommended use of the chemical and restrictions on use:

Uses: Coating applications
Restrictions on use: None identified

Details of the supplier:

Manufacturer/Supplier: Emerald Performance Materials, LLC
2020 Front Street, Suite 100
Cuyahoga Falls, Ohio 44221
United States
Telephone: +001-330-916-6700
FAX: +001-330-916-6734

For further information about this SDS: Email: product.compliance@emeraldmaterials.com

Emergency telephone number: Chemtrec (24 hours): USA: 1-800-424-9300; International: +001-703-527-3887.

SECTION 2: Hazard(s) identification

Information in accordance with 29 CFR 1910.1200 (Hazcom 2012) in effect on May 25, 2012:

Classification of the chemical in accordance with 29 CFR 1910.1200(d):

Skin Sensitizer, category 1
Serious Eye Damage, category 1

Label elements in accordance with 29 CFR 1910.1200(f):

Hazard pictogram(s):



Signal word:
Danger

Hazard statements:

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/eye protection/face protection.
P302+P352 IF ON SKIN:Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local, regional and international regulations.

Supplemental information: Hazardous to the aquatic environment - Chronic Category 3, Harmful to aquatic life with long lasting effects.

Notes: No Additional Information

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Annex III. Regulations in individual countries/regions may determine which statements are required on the product label. See product label for specifics.

Hazards not otherwise classified: No Additional Information

Information in accordance with 29 CFR 1910.1200 in effect before May 25, 2012:

Potential physical and environmental effects: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential health effects - Acute health effects: Causes serious eye damage. Causes mild skin irritation. May cause allergic skin reaction. Ingestion may cause irritation. High airborne concentrations of vapors resulting from heating, misting or spraying may cause irritation of the respiratory tract and mucous membranes. 2-AMINO-2-METHYL-1-PROPANOL: May cause severe eye irritation with corneal injury which may result in permanent impairment of vision including blindness. May cause moderate to severe skin irritation. Prolonged contact may cause skin burns. May be absorbed through the skin. Inhalation or ingestion may cause nausea, vomiting, diarrhea and respiratory tract irritation. ALKYLPHENOL ETHOXYLATE: Harmful if swallowed. May cause severe eye irritation with corneal injury which may result in permanent impairment of vision including blindness. Prolonged or repeated skin contact may cause moderate skin irritation with local redness. Mist may cause upper respiratory tract irritation.

Potential health effects - Chronic health effects: Prolonged or repeated contact may irritate the skin, causing dermatitis. 2-AMINO-2-METHYL-1-PROPANOL: May cause liver damage based on animal data.

See Section 11 for toxicological information.

SECTION 3: Composition/information on ingredients

Mixture:

<u>CAS-No.</u>	<u>Chemical Name</u>
Proprietary	Alkylphenol ethoxylate
0000124-68-5	2-Amino-2-methyl-1-propanol
0025322-68-3	Polyethylene glycol
0035691-65-7	1,2-Dibromo-dicyanobutane

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits. Exact percentage values for components are proprietary in accordance with 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

Description of first aid measures:

General: If irritation or other symptoms occur or persist from any route of exposure, remove the affected individual from the area: see a physician/get medical attention.

Eye contact: Immediately flush eyes with plenty of clean water for an extended time, not less than fifteen (15) minutes. Flush longer if there is any indication of residual chemical in the eye. Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll eyes in a circular motion. Get medical attention immediately.

Skin contact: Immediately remove contaminated clothing and shoes. Wash the affected area with plenty of soap and water until no evidence of the chemical remains (at least 15-20 minutes). Launder clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Inhalation: If affected, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse out the mouth with water. Get medical attention immediately.

Protection of first aid responders: Wear proper personal protective clothing and equipment.

Most important symptoms and effects, both acute and delayed: Irritation, Skin contact may discolor skin due to pigment. Pre-

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existing skin problems may be aggravated by prolonged or repeated contact. See section 11 for additional information.

Indication of any immediate medical attention and special treatment needed, if necessary: Treat symptomatically.

SECTION 5: Fire-fighting measures

NFPA flammability class: IIIB

Extinguishing media:

Suitable: NFPA Class IIIB (Combustible liquid): Use water spray, ABC dry chemical, foam or carbon dioxide. Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposures.

Unsuitable: None known.

Special hazards arising from the chemical:

Unusual fire/explosion hazards: Product is not considered a fire hazard, but will burn if ignited. Closed container may rupture (due to build up in pressure) when exposed to extreme heat.

Hazardous combustion products: Irritating or toxic substances may be emitted upon burning, combustion or decomposition. See section 10 (10.6 Hazardous decomposition products) for additional information.

Special protective equipment and precautions for fire-fighters: Wear self-contained breathing apparatus (SCBA) equipped with a full facepiece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations.

See section 9 for additional information.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 for recommendations on the use of personal protective equipment. If spilled in an enclosed area, ventilate. Eliminate ignition sources. Personal Protective Equipment must be worn.

Environmental precautions: Do not flush product into public sewer, water systems or surface waters.

Methods and materials for containment and cleaning up: Contain by diking with sand, earth or other non-combustible material. Wear proper personal protective clothing and equipment. Absorb spill with an inert material. Place into labeled, closed container; store in safe location to await disposal. Change contaminated clothing and laundry before reuse.

SECTION 7: Handling and storage

Precautions for safe handling: As with any chemical product, use good laboratory/workplace procedures. Do not cut, puncture, or weld on or near the container. Do not get in eyes. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities. Use under well-ventilated conditions. Avoid skin contact. Avoid inhalation of aerosol, mist, spray, fume or vapor. Avoid drinking, tasting, swallowing or ingesting this product. Wash contaminated clothing before reuse. Provide eyewash fountains and safety showers in the work area.

Conditions for safe storage, including any compatibilities: Store cool and dry, under well-ventilated conditions. Store this material away from incompatible substances (see section 10). Do not allow product to freeze. Do not store in open, unlabeled or mislabeled containers. Keep container closed when not in use. Empty container contains residual product which may exhibit hazards of product. Do not reuse empty container without commercial cleaning or reconditioning. Shelf life: 24 months.

SECTION 8: Exposure controls / personal protection

Control parameters:

Occupational exposure limits (OEL):

Chemical Name

ACGIH - TWA

ACGIH - STEL

Chemical Name	ACGIH - TWA	ACGIH - STEL		
Alkylphenol ethoxylate	N/E	N/E		
2-Amino-2-methyl-1-propanol	N/E	N/E		
Polyethylene glycol	N/E	N/E		
1,2-Dibromo-dicyanobutane	N/E	N/E		
Chemical Name	OSHA - PEL	OSHA - STEL	OSHA - Ceiling	Mexico
Alkylphenol ethoxylate	N/E	N/E	N/E	N/E
2-Amino-2-methyl-1-propanol	N/E	N/E	N/E	N/E
Polyethylene glycol	N/E	N/E	N/E	N/E
1,2-Dibromo-dicyanobutane	N/E	N/E	N/E	N/E

N/E=Not established (no exposure limits established for the listed substances for listed country/region/organization).

Polyethylene glycol: 10mg/m3 TWA 8-hr AIHA WEEL, aerosol.

Exposure controls:

Appropriate engineering controls: Always provide effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist and vapor away from workers to prevent routine inhalation. Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. (Ventilation guidelines/techniques may be found in publications such as Industrial Ventilation: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH, 45240-1634, USA.) (<http://www.acgih.org/home.htm>).

Individual protection measures, such as personal protective equipment (PPE):

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection: Wear chemical resistant (impervious) gloves. Use good laboratory/workplace procedures including personal protective clothing: labcoat, safety glasses and protective gloves.

Respiratory protection: Wear an approved respirator (e.g., an organic vapor respirator, a full face air purifying respirator for organic vapors, or a self-contained breathing apparatus) whenever exposure to aerosol, mist, spray, fume or vapor exceed the applicable exposure limit(s) of any chemical substance listed in this SDS. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

Further information: Eyewash fountains and safety showers are recommended in the work area.

SECTION 9: Physical and chemical properties

Form:	Liquid	pH:	7-9
Appearance:	Yellow	Relative density:	1.09
Odor:	Mild	Partition coefficient (n-octanol/water):	Not Available
Odor threshold:	Not Available	% Volatile by weight:	>57%
Solubility in water:	Dilutable	VOC:	1.2%
Evaporation rate:	Not Available	Boiling point °C:	Not Available
Vapor pressure:	Not Available	Boiling point °F:	Not Available
Vapor density:	Heavier than air	Flash point:	>93 °C (>200 °F)
Viscosity:	Not Available	Auto-ignition temperature:	Not Available
Melting point/Freezing point:	0°C (32°F)	Flammability (solid, gas):	Not Applicable (liquid)
Oxidizing properties:	Not oxidizing	Flammability or explosive limits:	LFL/LEL Not Available UFL/UEL Not Available
Explosive properties:	Not explosive		
Decomposition temperature:	Not Available		

Other information: Amounts specified are typical and do not represent a specification.

SECTION 10: Stability and reactivity

Reactivity: None known.

Chemical stability: This product is stable.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Excessive heat and ignition sources. Do not freeze.

Incompatible materials: Avoid strong acids, bases, and oxidizing agents. 2-AMINO-2-METHYL-1-PROPANOL: Avoid contact with

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strong oxidizing agents, acids, copper and its alloys, aluminum and brass.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, and oxides of nitrogen. Decomposition products can include aldehydes, ketones, and organic acids.

SECTION 11: Toxicological information

Information on likely routes of exposure:

General: Caution must be exercised through the prudent use of protective equipment and handling procedures to minimize exposure.

Eyes: Causes serious eye damage.

Skin: Repeated or prolonged skin contact may cause allergic reactions. Causes mild skin irritation.

Inhalation: High airborne concentrations of vapors resulting from heating, misting or spraying may cause irritation of the respiratory tract and mucous membranes.

Ingestion: Ingestion may cause irritation.

Symptoms/effects, acute and delayed: Irritation, Skin contact may discolor skin due to pigment

Acute toxicity information: Not classified (based on available data, the classification criteria are not met). No toxicity studies have been conducted on this product. ATEmix (oral): >5000 mg/kg.

<u>Chemical Name</u>	<u>Inhalation LC50</u>	<u>Species</u>	<u>Oral LD50</u>	<u>Species</u>	<u>Dermal LD50</u>	<u>Species</u>
Alkylphenol ethoxylate	>2.5 mg/L (6 hours, aerosol)	Rat/ adult	1900-5000 mg/kg	Rat/ adult	>3000 mg/kg	Rabbit/ adult
2-Amino-2-methyl-1-propanol	N/E		2900 mg/kg	Rat/ adult male	>2000 mg/kg	Rabbit/ adult
Polyethylene glycol	N/E		34 g/kg	Mouse	>20 g/kg	Rabbit/ adult
1,2-Dibromo-dicyanobutane	5.09 mg/L (4 hours)	Rat/ adult	770 mg/kg	Rat/ adult male	>5000 mg/kg	Rabbit/ adult

Skin corrosion/irritation: Not classified (based on available data, the classification criteria are not met).

<u>Chemical Name</u>	<u>Skin irritation</u>	<u>Species</u>
Alkylphenol ethoxylate	Mild-moderate irritant	
2-Amino-2-methyl-1-propanol	Moderate irritant	
Polyethylene glycol	N/E	
1,2-Dibromo-dicyanobutane	Irritant	Rabbit/ adult

Serious eye damage/irritation: Causes serious eye damage (Category 1).

<u>Chemical Name</u>	<u>Eye irritation</u>	<u>Species</u>
Alkylphenol ethoxylate	Severe irritant	Rabbit/ adult
2-Amino-2-methyl-1-propanol	Severe irritant	
Polyethylene glycol	N/E	
1,2-Dibromo-dicyanobutane	Severe irritant	Rabbit/ adult

Respiratory or skin sensitization: Skin sensitization - Category 1. ALKYLPHENOL ETHOXYLATE: Did not cause allergic skin reactions when tested in humans.

<u>Chemical Name</u>	<u>Skin sensitisation</u>	<u>Species</u>
Alkylphenol ethoxylate	Non-sensitizer	Human
2-Amino-2-methyl-1-propanol	Non-sensitizer	Guinea Pig/ adult
Polyethylene glycol	N/E	
1,2-Dibromo-dicyanobutane	Sensitizer	

Carcinogenicity: Not classified.

Carcinogenic status: The components of this mixture are not known to be listed or regulated by IARC, NTP, OSHA or ACGIH.

Germ cell mutagenicity: Not classified.

Reproductive toxicity: Not classified. ALKYLPHENOL ETHOXYLATE: Has been toxic to the fetus in lab animals at doses toxic to the mother. These effects were only observed at exaggerated doses. Did not cause birth defects in laboratory animals.

Specific target organ toxicity (STOT) - single exposure: Not classified.

Specific target organ toxicity (STOT) - repeated exposure: Not classified.

Aspiration hazard: Not classified.

Other toxicity information: No additional information available.

SECTION 12: Ecological information

Ecotoxicity: No ecological testing has been conducted on this product.

<u>Chemical Name</u>	<u>Fish 96 hour LC50</u>	<u>Fish 96 hour LC50</u>	<u>Fish Chronic NOEC</u>
Alkylphenol ethoxylate	4-8.9 mg/L (similar materials)	N/E	N/E
2-Amino-2-methyl-1-propanol	190 mg/L	331 mg/L	N/E
Polyethylene glycol	N/E	N/E	N/E
1,2-Dibromo-dicyanobutane	1.75 mg/L	4.09 mg/L	N/E
<u>Chemical Name</u>	<u>Invertebrates 48 hour EC50</u>	<u>Invertebrates 24 hour EC50</u>	<u>Invertebrates Chronic NOEC</u>
Alkylphenol ethoxylate	18-26 mg/L (similar materials)	N/E	N/E
2-Amino-2-methyl-1-propanol	65 mg/L	N/E	N/E
Polyethylene glycol	N/E	N/E	N/E
1,2-Dibromo-dicyanobutane	2.2-6.16 mg/L	N/E	N/E
<u>Chemical Name</u>	<u>Algae 96 hour EC50</u>	<u>Algae 72 hour EC50</u>	<u>Algae Chronic NOEC</u>
Alkylphenol ethoxylate	N/E	N/E	N/E
2-Amino-2-methyl-1-propanol	N/E	520 mg/L	N/E
Polyethylene glycol	N/E	N/E	N/E
1,2-Dibromo-dicyanobutane	N/E	0.15 mg/L	N/E

Persistence and degradability:

<u>Chemical Name</u>	<u>Biodegradation</u>
Alkylphenol ethoxylate	Readily biodegradable (OECD 301B)
2-Amino-2-methyl-1-propanol	Not readily biodegradable
Polyethylene glycol	Readily biodegradable
1,2-Dibromo-dicyanobutane	Readily biodegradable

Bioaccumulative potential:

<u>Chemical Name</u>	<u>Bioconcentration Factor (BCF)</u>	<u>Log Kow</u>
Alkylphenol ethoxylate	15 (estimated)	2.7 (estimated)
2-Amino-2-methyl-1-propanol	<1 (fish)	Not expected to bioaccumulate
Polyethylene glycol	Not Expected--high molecular weight	2.25
1,2-Dibromo-dicyanobutane	N/E	1.63 (calculated)

Mobility in soil:

<u>Chemical Name</u>	<u>Mobility in soil (Koc/Kow)</u>
Alkylphenol ethoxylate	N/E
2-Amino-2-methyl-1-propanol	N/E
Polyethylene glycol	N/E
1,2-Dibromo-dicyanobutane	N/E

Other adverse effects: No additional information available.

SECTION 13: Disposal considerations

For waste disposal purposes, this product is not known to be defined or designated as hazardous by current provisions of the Federal (EPA) Resource Conservation and Recovery Act (RCRA, 40CFR261). Incinerate waste product when in liquid form (i.e., as supplied) in a properly permitted (approved) incineration facility in accordance with federal, state and local regulations. Liquids cannot be disposed of in a landfill.

See Section 8 for recommendations on the use of personal protective equipment.

SECTION 14: Transport information

The information below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions.

UN number: N/A

UN proper shipping name:

Not regulated - See Bill of Lading for Details

Transport hazard class(es):

U.S. DOT hazard class: N/A

Canada TDG hazard class: N/A

Europe ADR/RID hazard class: N/A

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IMDG Code (ocean) hazard class: N/A

ICAO/IATA (air) hazard class: N/A

A "N/A" listing for the hazard class indicates the product is not regulated for transport by that regulation.

Packing group: N/A

Environmental hazards:

Marine pollutant: Not Applicable

Hazardous substance (USA): Not Applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not Applicable

Special precautions for user: Not Applicable

SECTION 15: Regulatory information

Safety, health and environment regulations/legislation specific for the product:

U.S. federal and state regulations/legislation:

This SDS has been prepared in accordance with the hazard criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Reportable Quantity (RQ):

Not Applicable

U.S. Superfund Amendments and Reauthorization Act (SARA) - SARA Section 313:

None Known

California Proposition 65:

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

None known to be present or none in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.

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

None known to be present or none in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.

Canada regulations/legislation:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Canadian Workplace Hazardous Material Information System (WHMIS) classification: D2B

Canadian Ingredient Disclosure List:

The following components are on the Canadian Ingredient Disclosure List (WHMIS):

Alkylphenol ethoxylate

Mexico regulations/legislation:

This SDS contains the information required by NOM-018-STPS-2000 Workplace Hazardous Chemical Substances Communication and Identification Standard.

Chemical inventories:

<u>Regulation</u>	<u>Status</u>
Canadian Domestic Substances List (DSL):	Y
Canadian Non-Domestic Substances List (NDSL):	N
U.S. Toxic Substances Control Act (TSCA):	Y

A "Y" listing indicates all intentionally added components are either listed or are otherwise compliant with the regulation. A "N" listing indicates that for one or more components: 1) there is no listing on the public inventory; 2) no information is available; or 3) the component has not been reviewed.

SECTION 16: Other information

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HMIS (Hazardous Materials Identification System) Ratings:

Health: 2 **Flammability:** 1 **Reactivity (Stability):** 0 **Personal Protection:** X

NFPA (National Paint and Coating Association) Ratings:

Health: 2 **Flammability:** 1 **Instability:** 0

Key: 0=Insignificant; 1=Slight; 2=Moderate; 3=High; 4=Extreme. An asterisk appearing after the HMIS Health numerical rating denotes a chronic hazard.

Hazardous Materials Identification System (HMIS), National Paint and Coating Association, rating applies to product "as packaged" (i.e., ambient temperature). Ratings are based upon HMIS® III and NFPA 704 (2007). An asterisk appearing after the HMIS Health® III numerical rating denotes a chronic hazard. National Fire Protection Association (NFPA) rating identifies the severity of hazards of material during a fire emergency (i.e., "on fire").

Legend:

* : Trademark owned by Emerald Performance Materials, LLC.

ACGIH: American Conference of Governmental Industrial Hygienists

N/A: Not Applicable

N/E: None Established

STEL: Short Term Exposure Limit

TWA: Time Weighted Average (exposure for 8-hour workday)

Users Responsibility/Disclaimer of Liability:

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.

Safety Data Sheet Preparer:

Product Compliance Department

Emerald Performance Materials, LLC

2020 Front Street, Suite 100

Cuyahoga Falls, Ohio 44221

United States