

CHO-BOND® 4669

51-02-4669-0000; 51-05-4669-0000

SDS Preparation Date (mm/dd/yyyy): 06/07/2018

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SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: **CHO-BOND® 4669**

Product Code(s) : 51-02-4669-0000; 51-05-4669-0000

Recommended use of the chemical and restrictions on use

: Conductive caulks and sealants.
No restrictions on use known.

Chemical family : Mixture of: Inorganic substances in powdered form; Hydrocarbons; Polyisobutylene

SDS number : PHC-189

Name, address, and telephone number of the manufacturer:

Parker Hannifin Corp.

Chomerics Division
77 Dragon Court
Woburn, MA, USA
01888

Manufacturer's Telephone # : (781) 935-4850

24 Hr. Emergency Tel # : INFOTRAC - (800) 535-5053 (Within Continental US); (352) 323-3500 (Outside US)

Name, address, and telephone number of the supplier:

Refer to manufacturer

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Charcoal / black, gritty paste. Solvent odor.

Most important hazards:

Flammable liquid and vapor. May be ignited by open flame.

Irritating to skin. Possible cancer hazard - contains material which may cause cancer. Contains material which can cause birth defects based on animal data. Occupational exposure to the substance or mixture may cause adverse effects. For further information, please refer to section 11 of the SDS.

Harmful to aquatic life with long lasting effects. Avoid release to the environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. See Section 12 for more environmental information.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification:

Flammable liquid - Category 3

Skin corrosion/irritation - Category 2

Carcinogenicity - Category 2

Reproductive toxicity - Category 2

Label elements

Hazard pictogram(s)



Signal Word
WARNING!

Hazard statement(s)

Flammable liquid and vapor. Causes skin irritation. Suspected of causing cancer. Suspected of damaging the unborn child.

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Precautionary statement(s)

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical and ventilating equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash exposed skin thoroughly after handling. Wear protective gloves/clothing and eye/face protection.

IF exposed or concerned: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

In case of fire, use dry chemical, CO₂, or alcohol foam to extinguish.

Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents/container in accordance with local regulation.

Other hazards

Other hazards which do not result in classification:

Toxic fumes, gases or vapors may evolve on burning.

Direct eye contact may cause slight or mild, transient irritation. Mild respiratory irritant. In extremely high concentrations, may cause symptoms of central nervous system depression. Inhalation of fumes may result in metal fume fever, a flu-like illness. May cause gastrointestinal irritation. Prolonged overexposure may cause slight liver and kidney effects, such as increased organ weights. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	Common name and synonyms	CAS #	Concentration (% by weight)
Copper	Not available.	7440-50-8	45.0 - 70.0
Xylene	Dimethylbenzene; Methyltoluene; Xylol	1330-20-7	7.0 - 13.0
silver	Silver metal Argentum	7440-22-4	7.0 - 13.0
Ethylbenzene	Ethylbenzol Phenylethane	100-41-4	0.5 - 1.5
Silica, amorphous fumed	Synthetic Amorphous, Pyrogenic Silica	112945-52-5	0.5 - 1.5
Carbon black	Furnace black Lamp black Thermal black	1333-86-4	0.1 - 1.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do not induce vomiting. Never give anything by mouth to a person who is unconscious or is having convulsions. IF exposed or concerned: Get medical advice/attention.
- Inhalation* : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing stops, provide artificial respiration. IF exposed or concerned: Get medical advice/attention.
- Skin contact* : IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

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Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. IF exposed or concerned: Get medical advice/attention.

Most important symptoms and effects, both acute and delayed

- : Causes skin irritation. Contact may cause redness, swelling and a painful sensation. Suspected of causing cancer. Symptoms may include persistent coughing, shortness of breath, coughing up blood and wheezing.
- Suspected of damaging the unborn child. Symptoms may include reduced fetal weight, delayed ossification and persistent behavioral effects.
- Mild respiratory irritant. May cause coughing and breathing difficulties. In extremely high concentrations, may also cause nausea, vomiting, dizziness, drowsiness and other symptoms of central nervous system depression.
- Inhalation of fumes may result in metal fume fever, a flu-like illness. Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath.
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Direct eye contact may cause slight or mild, transient irritation. Symptoms may include stinging and tearing.
- Prolonged overexposure may cause slight liver and kidney effects, such as increased organ weights.
- Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

Indication of any immediate medical attention and special treatment needed

- : Provide general supportive measures and treat symptomatically. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Carbon dioxide (CO₂); Dry chemical; Alcohol resistant foam.

Unsuitable extinguishing media

- : Do not use water jet, as this may spread burning material.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Flammable liquid and vapor. May be ignited by open flame. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Toxic fumes, gases or vapors may evolve on burning.

Flammability classification (OSHA 29 CFR 1910.106)

- : Flammable liquid - Category 3

Hazardous combustion products

- : Carbon oxides; Metal oxides; Hydrocarbons; Aldehydes; Other unidentified organic compounds.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Wear appropriate protective equipment. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Prevent product from entering drains, sewers, waterways and soil. Avoid release to the environment.

Methods and material for containment and cleaning up

- : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use inert, non-combustible absorbents to assist the pick up of material. Pick up and transfer to properly labeled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities. For waste disposal, see Section 13 of the SDS.

Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).

US CERCLA Reportable quantity (RQ): Copper (5000 lbs / 2270 kg); silver (1000 lbs / 454 kg); Xylene (100 lbs / 45.4 kg); Ethylbenzene (1000 lbs / 454 kg).

In Canada: Contact appropriate local and provincial environmental authorities for assistance and/or reporting requirements.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Use with adequate ventilation. Wear suitable protective equipment during handling. Wear protective gloves/clothing and eye/face protection. Avoid breathing dust, fume or vapors. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and open flame. - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical and ventilating equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep away from incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling. Empty containers retain residue and can be dangerous.

Conditions for safe storage : Store in cool/well-ventilated place. Store locked up. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Keep away from incompatibles. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area. No smoking.

Incompatible materials : Strong oxidizing agents; Strong acids; Halogenated compounds

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Copper	0.2 mg/m ³ (fume); 1 mg/m ³ (Dust and mist)	N/Av	0.1 mg/m ³ (fume); 1 mg/m ³ (Dust and mist)	N/Av
Xylene	100 ppm	150 ppm	100 ppm (435 mg/m ³)	N/Av
silver	0.1 mg/m ³ (dust and fume)	N/Av	0.01 mg/m ³	N/Av
Ethylbenzene	20 ppm	N/Av	100 ppm (435 mg/m ³)	N/Av
Silica, amorphous fumed	10 mg/m ³ (inhalable); 3 mg/m ³ (respirable) (PNOS)	N/Av	20 mppcf	N/Av
Carbon black	3.0 mg/m ³ (inhalable)	N/Av	3.5 mg/m ³	N/Av

ACGIH - Biological Exposure Indices:

Xylene (CAS # 1330-20-7)

1.5 g/g Creatinine, Medium: Urine, Parameter: Methylhippuric acid

Ethylbenzene (CAS # 100-41-4)

0.15 g/g Creatinine, Medium: Urine, Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

Exposure controls

Ventilation and engineering measures

- : Provide adequate ventilation. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof electrical and ventilating equipment. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection

- : If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.

Skin protection

- : Wear protective gloves/clothing. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Wear resistant clothing and boots. Depending on conditions of use, an impervious apron should be worn.

Eye / face protection

- : Wear eye/face protection. Wear as appropriate: Safety glasses with side shields; Tightly fitting safety goggles. A full face shield may also be necessary.

Other protective equipment

- : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations

- : Avoid breathing dust, fume or vapors. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : Charcoal / black, gritty paste.
- Odor** : Solvent odor.

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Odor threshold : N/Av
pH : N/Av
Melting/Freezing point : N/Av
Initial boiling point and boiling range : > 137°C (279°F) (based on ingredients)
Flash point : 29°C (84°F) (based on ingredients)
Flashpoint (Method) : closed cup
Evaporation rate (BuAe = 1) : N/Av
Flammability (solid, gas) : Not considered flammable.
Lower flammable limit (% by vol.) : N/Av
Upper flammable limit (% by vol.) : N/Av
Oxidizing properties : None known.
Explosive properties : Not explosive
Vapor pressure : N/Av
Vapor density : N/Av
Relative density / Specific gravity : 2.33
Solubility in water : Insoluble.
Other solubility(ies) : N/Av
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution : N/Av
Auto-ignition temperature : N/Av
Decomposition temperature : N/Av
Viscosity : N/Av
Volatiles (% by weight) : 15.2%
Volatile organic Compounds (VOC's) : 340 g/L
Absolute pressure of container : N/Av
Flame projection length : N/Av
Other physical/chemical comments : No additional information.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Hazardous polymerization does not occur.
Conditions to avoid : Direct sources of heat. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.
Incompatible materials : Strong oxidizing agents; Strong acids; Halogenated compounds
Hazardous decomposition products : None known, refer to hazardous combustion products in Section 5.

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SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry ingestion : YES

Routes of exposure skin absorption
: YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

- : Mild respiratory irritant. May cause coughing and breathing difficulties. In extremely high concentrations, may also cause nausea, vomiting, dizziness, drowsiness and other symptoms of central nervous system depression. Inhalation of fumes may result in metal fume fever, a flu-like illness. Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath.

Sign and symptoms ingestion

- : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin

- : Causes skin irritation. Contact may cause redness, swelling and a painful sensation. Can be absorbed through skin.

Sign and symptoms eyes

- : Direct eye contact may cause slight or mild, transient irritation. Symptoms may include stinging and tearing.

Potential Chronic Health Effects

- : Prolonged overexposure may cause slight liver and kidney effects, such as increased organ weights.

Mutagenicity

- : No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

- : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification:
Carcinogenicity - Category 2. Suspected of causing cancer. Symptoms may include persistent coughing, shortness of breath, coughing up blood and wheezing.
Contains: Ethylbenzene; carbon black.
Ethylbenzene is classified as possibly carcinogenic by IARC (Group 2B) and the ACGIH (Category A3).
Carbon black is classified as carcinogenic by IARC (Group 2B).

Reproductive effects & Teratogenicity

- : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification:
Reproductive toxicity - Category 2. Suspected of damaging the unborn child.
This product contains Xylene. Xylene may cause fetotoxic effects (e.g. reduced fetal weight, delayed ossification, behavioral effects) at doses which are not maternally toxic, based on animal data.

Sensitization to material

- : Not expected to be a skin or respiratory sensitizer.

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Specific target organ effects : According to the classification criteria of Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause specific target organ toxicity (STOT) through single or repeated exposures.

Medical conditions aggravated by overexposure

: Pre-existing eye, skin, respiratory, liver, kidney and central nervous system disorders.

Synergistic materials

: None known or reported by the manufacturer.

Toxicological data

: Not classified for acute toxicity based on available data. No data is available on the product itself. The calculated ATE values for this mixture are:

ATE oral = 26,924 mg/kg

ATE inhalation (vapors) = 236 mg/L/4H

See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀ (4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Copper	> 5.11 mg/L (dust) (No mortality)	> 2500 mg/kg	> 2000 mg/kg
Xylene	6350 ppm (27.6 mg/L) (vapor)	3253 mg/kg	12 180 mg/kg
silver	> 5.16 mg/L (dust) (No mortality)	> 2000 mg/kg (No mortality)	> 2000 mg/kg (No mortality)
Ethylbenzene	4000 ppm (17.4 mg/L) (vapor)	3500 mg/kg	15 380 mg/kg
Silica, amorphous fumed	> 2.08mg/L/4H (no deaths) (dust)	3160 mg/kg	> 5000mg/kg
Carbon black	6.75 mg/L (dust)	> 10 000 mg/kg	> 3000 mg/kg

Other important toxicological hazards

: Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

: Harmful to aquatic life with long lasting effects. No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. The following ingredient(s) may be harmful to aquatic life: Xylene; Ethylbenzene.

This product also contains: Copper. The acute toxicity of copper to aquatic species varies drastically by the chemical form and correlates with the availability of free ionic copper. Aquatic toxicity is highly variable not only by organism but with physical and chemical characteristics of the water itself.

See the following tables for individual ingredient ecotoxicity data.

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Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Copper	7440-50-8	N/Av	N/Av	None.
Xylene	1330-20-7	8.2 mg/L (Rainbow trout)	N/Av	None.
silver	7440-22-4	N/Av	N/Av	None.
Ethylbenzene	100-41-4	4.2 mg/L (Rainbow trout)	1.13 mg/L (30 days) (QSAR)	None.
Silica, amorphous fumed	112945-52-5	N/Av	N/Av	None.
Carbon black	1333-86-4	> 1000 mg/L (Zebra fish)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Copper	7440-50-8	N/Av	N/Av	None.
Xylene	1330-20-7	3.2 - 9.56 mg/L (Daphnia magna)	N/Av	None.
silver	7440-22-4	N/Av	N/Av	None.
Ethylbenzene	100-41-4	1.81 mg/L (Daphnia magna)	N/Av	None.
Silica, amorphous fumed	112945-52-5	> 10 000 mg/L/24hr (Daphnia magna)	N/Av	None.
Carbon black	1333-86-4	> 5600 mg/L/24hr (Daphnia magna)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Copper	7440-50-8	N/Av	N/Av	None.
Xylene	1330-20-7	3.2 - 4.9 mg/L/72hr (Green algae)	N/Av	None.
silver	7440-22-4	N/Av	N/Av	None.
Ethylbenzene	100-41-4	3.6 mg/L/96hr (Green algae)	3.4 mg/L/96hr	None.
Silica, amorphous fumed	112945-52-5	> 10 000 mg/L/72hr (Green algae)	N/Av	None.
Carbon black	1333-86-4	> 10 000 mg/L/72hr (Green algae)	N/Av	None.

Persistence and degradability

- : The product itself has not been tested.
- Contains the following chemicals which are considered to be inherently biodegradable: Xylene; Ethylbenzene.
- Contains the following chemicals which are not readily biodegradable: Copper; silver; Carbon black; Amorphous silica.

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Bioaccumulation potential : The product itself has not been tested. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Xylene (CAS 1330-20-7)	3.12 - 3.2	50 - 58
Ethylbenzene (CAS 100-41-4)	3.15	1.1 - 1.5
Silica, amorphous fumed (CAS 112945-52-5)	0.53(calculated)	N/Av

Mobility in soil : The product itself has not been tested.

Other Adverse Environmental effects

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. This material and its container must be disposed of in a safe way.
Empty containers retain residue and can be dangerous. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

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SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	UN1993	FLAMMABLE LIQUID, N.O.S. (Xylene; Ethylbenzene)	3	III	
49CFR/DOT Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Refer to 49 CFR Section 173.150.				
TDG	UN1993	FLAMMABLE LIQUID, N.O.S. (Xylene; Ethylbenzene)	3	III	
TDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass. Under the TDG, refer to Section 1.17 for additional exemption requirements, if shipping under this exemption.				
ICAO/IATA	UN1993	Flammable liquid, n.o.s. (Xylene; Ethylbenzene)	3	III	
ICAO/IATA Additional information	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.				
IMDG	UN1993	FLAMMABLE LIQUID, N.O.S. (Xylene; Ethylbenzene)	3	III	
IMDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 Litres; in packages not exceeding 30 kg gross mass.				

Special precautions for user : Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame. - No smoking.

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

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SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Copper	7440-50-8	Yes	5000 lbs / 2270 kg	None.	Yes	1%
Xylene	1330-20-7	Yes	100 lbs / 45.4 kg	None.	Yes	1%
silver	7440-22-4	Yes	1000 lb/454 kg	None.	Yes	1%
Ethylbenzene	100-41-4	Yes	1000 lb/ 454 kg	None.	Yes	0.1%
Silica, amorphous fumed	112945-52-5	Yes	None.	None.	No	N/Ap
Carbon black	1333-86-4	Yes	None.	None.	No	N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:

Physical hazards (Flammable liquid)

Health hazards (Skin irritation; Carcinogenicity; Reproductive toxicity)

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Copper	7440-50-8	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Xylene	1330-20-7	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
silver	7440-22-4	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Ethylbenzene	100-41-4	Yes	Cancer	Yes	Yes	Yes	Yes	Yes	Yes
Silica, amorphous fumed	112945-52-5	No	N/Ap	No	No	No	No	No	No
Carbon black	1333-86-4	Yes	Cancer (airborne, unbound particles of respirable size)	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Canadian National Pollutant Release Inventory (NPRI): This product contains the following substances listed on the NPRI:

- Copper (Part 1, Group A Substance)
- silver (Part 1, Group A Substance)
- Xylene (Part 1: Group A; Part 5: Isomer Groups)
- Ethylbenzene (Part 1, Group A Substance)

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

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International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	New Zealand IOC
Copper	7440-50-8	231-159-6	Present	Present	Not listed	KE-08896	Present	HSR002948
Xylene	1330-20-7	215-535-7	Present	Present	(3)-60; (3)-3	KE-35427	Present	HSR000983
silver	7440-22-4	231-131-3	Present	Present	Not listed	KE-31261	Present	HSR003077
Ethylbenzene	100-41-4	202-849-4	Present	Present	(3)-60; (3)-28	KE-13532	Present	HSR001151
Silica, amorphous fumed	112945-52-5	231-545-4 (as Silicon dioxide)	Present	Present	(1)-548	KE-30953	Present	May be used as a single component chemical under an appropriate group standard.
Carbon black	1333-86-4	215-609-9	Present	Present	(5)-3328; (5)-5222	KE-04682	Present	HSR002801

SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
 AIHA: American Industrial Hygiene Association
 AICS: Australian Inventory of Chemical Substances
 CA: California
 CAS: Chemical Abstract Services
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 CFR: Code of Federal Regulations
 CSA: Canadian Standards Association
 DOT: Department of Transportation
 EC50: Effective Concentration 50%
 EINECS: European Inventory of Existing Commercial chemical Substances
 ENCS: Existing and New Chemical Substances
 EPA: Environmental Protection Agency
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 IBC: Intermediate Bulk Container
 IECSC: Inventory of Existing Chemical Substances
 IMDG: International Maritime Dangerous Goods
 IOC: Inventory of Chemicals
 KECI: Korean Existing Chemicals Inventory
 KECL: Korean Existing Chemicals List
 LC: Lethal Concentration
 LD: Lethal Dose
 MA: Massachusetts
 MN: Minnesota
 N/Ap: Not Applicable
 N/Av: Not Available
 NIOSH: National Institute of Occupational Safety and Health
 NJ: New Jersey
 NOEC: No observable effect concentration
 NTP: National Toxicology Program
 OECD: Organisation for Economic Co-operation and Development
 OSHA: Occupational Safety and Health Administration
 PA: Pennsylvania

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PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WEEL: Workplace Environmental Exposure Level
WHMIS: Workplace Hazardous Materials Identification System

References



- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2017.
- 2. International Agency for Research on Cancer Monographs, searched 2018.
- 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2018 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists - March 2015 version.
- 6. California Proposition 65 List - May 25, 2018 version.
- 7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2018.

Preparation Date (mm/dd/yyyy)

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Other special considerations for handling

: Provide adequate information, instruction and training for operators.

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