

SDS Number: 322 Revision Date: 08/18/2015 Supersedes Date: 03/14/2014

SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Name: GC BOND

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION					
Product Type: Product Name: Part Number(s):	Solvent Release Adhesive GC BOND 10-4302-B	Emergency Contact: Phone:	Chemtrec (800) 424-9300		

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	: Category 2	Carcinogenicity	: Category 1B
Skin irritation	: Category 2	Specific target organ systemic toxicity - single	: Category 3 (Central nervous system)
Eye irritation	: Category 2A	exposure	
Skin sensitization	: Category 1	Specific target organ systemic toxicity - repeated exposure	: Category 2 (Skin, Nervous system, Liver, Kidney)

GHS Label element

Hazard pictograms	
Signal Word	: Danger
Hazard Statements	 Highly flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

May cause drowsiness or dizziness. May cause cancer. May cause damage to organs (Skin, Nervous system, Liver,



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SECTION 2. HAZARDS IDENTIFICATION (CONTINUED)

Precautionary Statements	 Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/ attention. If skin irritation or rash occurs: Get medical advice/ attention. If skin irritation persists: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation
	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.
	Disposal: Dispose of contents/ container to an approved waste disposal plant.
Other hazards None known.	
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SECTION 3. COMPOSITION / INFORMATION OF INGREDIENTS

Chemical nature

: Defatter

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
ACETONE	67-64-1	Flam. Liq. 2; H225	71.76
		Eye Irrit. 2A; H319	
		STOT SE 3; H336	
METHYL ETHYL KETONE	78-93-3	Flam. Liq. 2; H225	4.75
		Eye Irrit. 2A; H319	
		STOT SE 3; H336	
CALCIUM CARBONATE	471-34-1		2.89
	400.05.0		4.00
PHENOL	108-95-2	Acute Tox. 3; H301	1.02
		Acute Tox. 3; H331	
		Acute Tox. 3; H311	
		Skin Corr. 1; H314	
		Eye Dam. 1; H318	
		STOT RE 2; H373	
FORMALDEHYDE	50-00-0	Flam. Liq. 4; H227	0.12
		Acute Tox. 3; H301	



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SECTION 3. COMPOSITION / INFORMATION OF INGREDIENTS (CONTINUED)

Acute Tox. 3; H331

Acute Tox. 3; H311 Skin Corr. 1B; H314

Eye Dam. 1; H318

Skin Sens. 1; H317

Carc. 1B; H350

SECTION 4. FIRST AID MEASURES

General advice	 Move out of dangerous area. Call a POISON CENTRE or doctor/physician if exposed or you feel unwell. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	 Move to fresh air. If unconscious place in recovery position and seek medical advice. Consult a physician after significant exposure.
In case of skin contact	 Remove contaminated clothing. If irritation develops, get medical attention. If on skin, rinse well with water. Wash contaminated clothing before re-use. If on clothes, remove clothes.
In case of eye contact	 Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye.



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SECTION 4. FIRST AID MEASURES (CONTINUED)

If swallowed	 Obtain medical attention. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting. Phenol concentrations greater than 1.5% produce irritation and greater than 5% are corrosive; vomiting can cause further damage to the mouth and throat. Do not dilute the swallowed material, since this may enhance its absorption. Seek immediate medical attention. If possible, do not leave the individual unattended. Vomiting and diarrhea may occur spontaneously.
Most important symptoms and effects, both acute and delayed	 This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion. Ingestion of large amounts or other significant exposure to this material (or a component) may cause alkalosis. Excessive calcium intake may cause gastrointestinal symptoms, hypertension, hypercalcemia, kidney stones, and may inhibit absorption of iron, zinc, and possibly other trace elements. Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. Pulmonary edema may be delayed. Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways) Cough low body temperature irregular heartbeat cyanosis (causes blue coloring of the skin and nails from lack of oxygen) Iung edema (fluid buildup in the lung tissue) Convulsions respiratory failure Difficulty in breathing Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness.



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SECTION 4. FIRST AID MEASURES (CONTINUED)

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

Notes to physician

: Phenol adsorbs to activated charcoal, and it maybe preferable to ipecac-induced emesis because seizures or coma may onset rapidly and because of the corrosive effects of phenol. A usual activated charcoal dose in adults is 30-100 g and in children is 15-30 g. Activated charcoal should be administered with, or followed by, a cathartic. If endoscopy is planned, charcoal may obscure visualization of affected areas. Gastric lavage may be indicated if it is performed soon after ingestion or in patients who are comatose or at risk of seizures. Monitor for seizures, metabolic acidosis and ventricular dysrhythmias.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray Foam Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical	
Unsuitable extinguishing media	High volume water jet	
Specific hazards during firefighting	Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Do not allow run-off from fire fighting to enter drains or water courses.	
Hazardous combustion products	carbon dioxide and carbon monoxide Hydrogen cyanide (hydrocyanic acid) nitrogen oxides (NOx) calcium oxide acid vapors	



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SECTION 5. FIRE-FIGHTING MEASURES (CONTINUED)

Specific extinguishing methods	:
	Product is compatible with standard fire-fighting agents.
Further information	 Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Remove all sources of ignition. Use personal protective equipment. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Other information	:	Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet.



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SECTION 7. HANDLING AND STORAGE

Advice on safe handling	 Open drum carefully as content may be under pressure. Avoid formation of aerosol. Provide sufficient air exchange and/or exhaust in work rooms. Do not breathe vapours/dust. Do not smoke. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Container hazardous when empty. Take precautionary measures against static discharges. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. No smoking. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Components with workplace control parameters

•				
Components	CAS-No.	Value type	Control	Basis
		(Form of	parameters /	
		exposure)	Permissible	
			concentration	



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SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION (CONTINUED)

ACETONE	67-64-1	TWA	500 ppm	ACGIH
		STEL	750 ppm	ACGIH
		REL	250 ppm 590 mg/m3	NIOSH/GUIE E
		PEL	1,000 ppm 2,400 mg/m3	OSHA_TRA NS
		TWA	250 ppm	ACGIHLIS_F
		STEL	500 ppm	ACGIHLIS_F
		TWA	750 ppm 1,800 mg/m3	Z1A
		STEL	1,000 ppm 2,400 mg/m3	Z1A
METHYL ETHYL KETONE	78-93-3	TWA	200 ppm	ACGIH
		STEL	300 ppm	ACGIH
		REL	200 ppm 590 mg/m3	NIOSH/GUII E
		STEL	300 ppm 885 mg/m3	NIOSH/GUII E
		PEL	200 ppm 590 mg/m3	OSHA_TRA NS
CALCIUM CARBONATE	471-34-1	PEL	5 mg/m3 Respirable fraction.	OSHA_TRA NS
		PEL	15 mg/m3 Total dust.	OSHA_TRA NS
		REL	5 mg/m3 Respirable.	NIOSH/GUII E
		REL	10 mg/m3 Total	NIOSH/GUII E
PHENOL	108-95-2	TWA	5 ppm	ACGIH
		REL	5 ppm 19 mg/m3	NIOSH/GUII E
		Ceil_Time	15.6 ppm 60 mg/m3	NIOSH/GUII E
		PEL	5 ppm 19 mg/m3	OSHA_TRA NS
		TWA	5 ppm 19 mg/m3	TN OEL



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SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION (CONTINUED)

FORMALDEHYDE	50-00-0	Ceiling	0.3 ppm	ACGIH
		REL	0.016 ppm	NIOSH/GUID E
		Ceil_Time	0.1 ppm	NIOSH/GUID E
		TWA	0.75 ppm	OSHASP
		STEL	2 ppm	OSHASP
		OSHA_ACT	0.5 ppm	OSHASP
		Ceiling	0.3 ppm	ACGIHLIS_P

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
ACETONE	67-64-1	acetone	Urine	Samplin g time: End of shift.	50 mg/l	
Remarks:	Nonspecific	;				
METHYL ETHYL KETONE	78-93-3	methylEthyl Ketone	Urine	Samplin g time: End of shift.	2 mg/l	ACGIH BEI
Remarks:	Nonspecific	;		•		
PHENOL	108-95-2	Phenol with hydrolysis	Creatinine in urine	Samplin g time: End of shift.	250 mg/g	
Remarks:	Background	d, Nonspecific	•	•	•	-

Engineering measures

: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
		A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has



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	otherwise been determined. Protection provided by air- purifying respirators is limited. Use a positive pressure, air- supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.
Hand protection Remarks	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.
Skin and body protection	Wear as appropriate: impervious clothing Safety shoes Flame-resistant clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place. Discard gloves that show tears, pinholes, or signs of wear. Wear resistant gloves (consult your safety equipment supplier).
Hygiene measures	Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid	Relative vapour density	: No data available
Colour	: tan	Relative density	: 0.8577 (77.00 °F)
Odour	: No data available	Density	: 0.8577 g/cm3 (77.00 °F)
Odour Threshold	: No data available	Density	. 0.0077 groind (77.00 T)
рН	: No data available	Solubility(ies) Water solubility	: No data available
Melting point/freezing point	: No data available	Solubility in other solvents	: No data available
Boiling point/boiling range	: No data available		
Flash point	: -4 °F / -20 °C Method: Seta closed cup	Partition coefficient: n- octanol/water	: No data available
Evaporation rate	: 1 Ethyl Ether	Thermal decomposition	: No data available
Flammability (solid, gas)	: No data available	Viscosity Viscosity, dynamic	: 600 mPa.s
Upper explosion limit	: No data available	Viscosity, kinematic	: No data available
Lower explosion limit	: No data available	Oxidizing properties	: No data available
Vapour pressure	: No data available		

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air. Formaldehyde reacts with peroxides, phenol, strong acids, amines and strong oxidizing agents. Formaldehyde reacts violently with nitrogen dioxide, nitromethane, perchloric acid, perchloric acid-aniline mixtures, or peroxyformic acid to yield explosive compounds.It reacts with hydrochloric acid or to organic chlorides to form the carcinogen, bis(chloromethyl)ether.



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SECTION 10. STABILITY AND REACTIVITY (CONTINUED)

Conditions to avoid
Incompatible materials

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation Skin contact Eye Contact Ingestion
Acute toxicity Not classified based on availab <u>Components:</u> ACETONE:	ole	information.
Acute oral toxicity	:	LD 50 (Rat, female): 5,800 mg/kg
Acute inhalation toxicity	:	LC 50 (Rat, female): 76 mg/l Exposure time: 4 h
Acute dermal toxicity	:	LD 50 (Rabbit): > 7,426 mg/kg
METHYL ETHYL KETONE: Acute oral toxicity	:	LD 50 (Rat): 2,300 - 3,500 mg/kg
Part Number(s): 10-4302-B		

acid vapors calcium oxide carbon dioxide and carbon monoxide



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)					
Acute dermal toxicity	: LD 50 (Rabbit): > 5 g/kg				
CALCIUM CARBONATE: Acute oral toxicity	: LD 50 (Rat): 6,450 mg/kg				
Acute inhalation toxicity	 LC 50 (Rat): > 3 mg/l Exposure time: 4 h Method: OECD Test Guideline 403 Assessment: Not classified as acutely toxic by inhalation under GHS. Remarks: Aerosol 				
Acute dermal toxicity	: LD 50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402				
PHENOL: Acute oral toxicity	: LD 50 (Rat): 317 mg/kg				
	LD 50 (Mouse): 270 mg/kg Assessment: The component/mixture is classified as acute oral toxicity, category 3.				
Acute inhalation toxicity	 Assessment: The component/mixture is classified as acute inhalation toxicity, category 3. 				
Acute dermal toxicity	: LD 50 (Rabbit): 850 mg/kg				
	LD50 (Rat, females): 660 mg/kg Method: OECD Test Guideline 402				
FORMALDEHYDE: Acute oral toxicity	: LD 50 (Guinea pig): 260 mg/kg				
	LD 50 (Rat): 100 mg/kg				
	LD 50 (Rat, Male): 800 mg/kg Assessment: The component/mixture is classified as acute oral toxicity, category 3.				
Acute inhalation toxicity	 LC 50 (Rat): 588 mg/m3 Exposure time: 4 h Test atmosphere: gas Assessment: The component/mixture is classified as acute inhalation toxicity, category 3. 				
Acute dermal toxicity	: LD 50 (Rabbit): 288 mg/kg				



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

Skin corrosion/irritation Causes skin irritation. Product: Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation and/or dermatitis.

Components: ACETONE: Result: Mildly irritating to skin

Result: Repeated exposure may cause skin dryness or cracking.

METHYL ETHYL KETONE: Result: Not irritating to skin

CALCIUM CARBONATE: Result: Not irritating to skin

PHENOL: Result: Corrosive to skin

FORMALDEHYDE: Result: Causes burns.

Serious eye damage/eye irritation Causes serious eye irritation.

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components: ACETONE: Result: Irritating to eyes

METHYL ETHYL KETONE: Result: Irritating to eyes

CALCIUM CARBONATE: Result: Not irritating to eyes



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

PHENOL: Result: Corrosive to eyes

FORMALDEHYDE: Result: Corrosive to eyes

Respiratory or skin sensitisation Skin sensitisation: May cause an allergic skin reaction. Respiratory sensitisation: Not classified based on available information.

Components: FORMALDEHYDE:

Result: Does not cause respiratory sensitisation.

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Not classified based on available information.

<u>Components:</u> PHENOL:	
Genotoxicity in vitro	 Test Type: Chromosome aberration test in vitro Test species: Chinese hamster ovary cells Metabolic activation: with metabolic activation Method: OECD Test Guideline 473 Result: positive
	 Test Type: Micronucleus test Test species: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 487 Result: positive
Genotoxicity in vivo	 Test Type: Micronucleus test Test species: Mouse (male and female) Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: positive
FORMALDEHYDE:	
Genotoxicity in vitro	: Test Type: Ames test Test species: Salmonella typhimurium Metabolic activation: without metabolic activation Result: positive



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

	 Test Type: Chromosome aberration test Test species: mouse lymphoma cells Metabolic activation: with and without m Result: positive Test Type: In vitro mammalian cell gene Test species: Chinese hamster fibrobla Metabolic activation: with and without m Result: negative Test Type: in vitro assay Test species: Human lymphocytes Metabolic activation: with and without m Result: Conflicting results have been set 	netabolic activation e mutation test sts netabolic activation
Genotoxicity in vivo	 Test Type: Micronucleus test Test species: Mouse Application Route: Oral Result: negative Test Type: Micronucleus test Test species: Mouse Application Route: inhalation (gas) Result: negative Test Type: in vivo assay Test species: Rat Application Route: inhalation (gas) Result: negative Test Type: Mouse specific locus test Test species: Mouse Application Route: inhalation (gas) Result: negative 	Test Type: Mammalian bone marrow sister chromatid exchange Test species: Rat Application Route: inhalation (gas) Result: negative Test Type: comet assay Test species: Rat Application Route: inhalation (gas) Result: negative



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

Carcinogenicity May cause cancer.

Components FORMALDEHYDE: Species: Rat

Application Route: Ingestion Result: negative

Species: Mouse Application Route: Dermal Result: negative

Species: Rat **Application Route: Inhalation** Result: positive Carcinogenicity -: Presumed to have carcinogenic potential for humans Assessment

Reproductive toxicity Not classified based on available information.

Components: FORMALDEHYDE: Effects on fertility Effects on foetal : Species: Rat development

: Remarks: No data available Result: No teratogenic effects

STOT - single exposure May cause drowsiness or dizziness. Components: ACETONE: Exposure routes: Inhalation Target Organs: Nervous system Assessment: May cause drowsiness or dizziness.

METHYL ETHYL KETONE: Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs (Skin, Nervous system, Liver, Kidney) through prolonged or repeated exposure.



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

<u>Components:</u> PHENOL: Target Organs: Skin Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: Nervous system Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: Liver Assessment: May cause damage to organs through prolonged or repeated exposure.

Target Organs: Kidney Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

FORMALDEHYDE: Species: Rat No observed adverse effect level: 82 mg/kg Application Route: Ingestion

Species: Rat No observed adverse effect level: 1.2 mg/m3 Application Route: inhalation (gas) Target Organs: Nose, Upper respiratory tract

Aspiration toxicity Not classified based on available information. <u>Product</u>: No aspiration toxicity classification

<u>Components:</u> ACETONE: May be harmful if swallowed and enters airways.

METHYL ETHYL KETONE: May be harmful if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.



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SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

<u>Components:</u> METHYL ETHYL KETONE: Remarks: Central nervous system	Carcinogenicity: IARC	Group 1: Carcinogenic to he	umans
PHENOL:		FORMALDEHYDE	50-00-0
Remarks: Central nervous system	OSHA	OSHA specifically regulated	l carcinogen
Remarks: Blood		FORMALDEHYDE	50-00-0
	NTP	Known to be human carcino	ogen
		FORMALDEHYDE	50-00-0

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

ACETONE:	
Toxicity to fish	 LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss)): 4,740 - 6,330 mg/l Exposure time: 96 h Test Type: static test
	LC 50 (Fathead minnow (Pimephales promelas)): 8,733 - 9,482 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to algae	 NOEC (Microcystis aeruginosa): 530 mg/l Exposure time: 8 d Test Type: static test
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 2,112 mg/l Exposure time: 28 d Test Type: flow-through test



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SECTION 12. ECOLOGICAL INFORMATION (CONTINUED)

METHYL ETHYL KETONE:	
Toxicity to fish	 LC 50 (Fathead minnow (Pimephales promelas)): 3,130 - 3,320 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	EC 50 (Water flea (Daphnia magna)): 4,025 - 6,440 mg/l Exposure time: 48 h Test Type: static test Remarks: Intoxication
CALCIUM CARBONATE:	
Toxicity to fish	: LC 50 (Gambusia affinis (Mosquito fish)): > 56,000 mg/l Exposure time: 96 h Test Type: static test
PHENOL:	
Toxicity to fish	 LC 50 (Oncorhynchus mykiss (rainbow trout)): 7.5 - 14 mg/l Exposure time: 96 h Test Type: static test
	LC 50 (Fathead minnow (Pimephales promelas)): 67.5 mg/l Exposure time: 96 h Test Type: flow-through test
	LC 50 (Danio rerio (zebra fish)): 27.8 mg/l
	Exposure time: 96 h Method: Static Remarks: Mortality
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Water flea (Ceriodaphnia dubia)): 3.1 mg/l Exposure time: 48 h Test Type: static test
Toxicity to algae	 EC50 (Pseudokirchneriella subcapitata (green algae)): 61.1 mg/l Exposure time: 96 h Test Type: static test
Toxicity to fish (Chronic toxicity)	: NOEC (Fish): 0.077 mg/l Exposure time: 60 d Test Type: semi-static test



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SECTION 12. ECOLOGICAL INFORMATION (CONTINUED)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	NOEC (Water flea (Daphnia magna)): 0.16 mg/l Exposure time: 16 d Test Type: semi-static test
FORMALDEHYDE: Toxicity to fish	LC 50 (Danio rerio (zebra fish)): 41 mg/l Exposure time: 96 h Method: Static Remarks: Mortality
	LC 50 (Striped bass (Morone saxatilis)): 6.7 mg/l Exposure time: 96 h Method: Static
Toxicity to daphnia and other aquatic invertebrates	EC 50 (Water flea (Daphnia magna)): 29 mg/l Exposure time: 48 h Method: Static Remarks: Intoxication
	EC 50 (Water flea (Daphnia pulex)): 5.8 mg/l Exposure time: 48 h
Toxicity to algae	ErC50 (Desmodesmus subspicatus): 4.89 mg/l Exposure time: 72 h
Toxicity to bacteria	EC 50 (activated sludge): 19 mg/l Exposure time: 3 h Test Type: Respiration inhibition
Persistence and degradability	
<u>Components:</u> ACETONE:	
Biodegradability	Result: Readily biodegradable Biodegradation: 90.9 % Exposure time: 28 d Method: OECD Test Guideline 301B
PHENOL:	
Biodegradability	Result: Readily biodegradable Biodegradation: 62 % Exposure time: 100 h Method: OECD Test Guideline 301C



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SECTION 12. ECOLOGICAL INFORMATION (CONTINUED)

FORMALDEHYDE:	
Biodegradability	: aerobic Result: Readily biodegradable Biodegradation: 90 % Exposure time: 28 d Method: OECD Test Guideline 301D
	aerobic Result: Readily biodegradable Biodegradation: > 90 % Exposure time: 2 Weeks Method: OECD Test Guideline 301C
Photodegradation	:
Bioaccumulative potential <u>Components:</u> ACETONE:	
Partition coefficient: n- octanol/water	: log Pow: -0.24
METHYL ETHYL KETONE: Partition coefficient: n- octanol/water	: log Pow: 0.29
PHENOL: Partition coefficient: n- octanol/water	: log Pow: 1.46
FORMALDEHYDE: Bioaccumulation	: Remarks: No bioaccumulation is to be expected (log Pow <= 4).
Partition coefficient: n- octanol/water	4). : log Pow: 0.35 (25 °C)
Mobility in soil	
<u>Components:</u> No data available	
Other adverse effects	



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SECTION 12. ECOLOGICAL INFORMATION (CONTINUED)

Product:

Additional ecological : No data available information

Components:

FORMALDEHYDE: Results of PBT and vPvB assessment	: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).
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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
General advice	 Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
	Dispose of in accordance with all applicable local, state and federal regulations.
Contaminated packaging	 Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD	SUBSIDIARY	PACKING	MARINE
		CLASS	HAZARDS	GROUP	POLLUTANT /
					LTD. QTY.

U.S. DOT - ROAD

UN	1133	Adhesives	3	11	
	-		•	•	·



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)T <u> - RAIL</u>				
UN	1133	Adhesives	3	II	
U.S. DC	T - INLAI	ND WATERWAYS			
UN	1133	Adhesives	3		
		-	· · ·		
TRANS	PORTCA	NADA - ROAD			
UN	1133	ADHESIVES	3	II	
		-	· · ·		
TDANC		NADA - RAIL			
	1133	ADHESIVES	3		
•					
UN	1133	ADHESIVES	3	<u>.</u>	
INTERN	IA <u>TIONAI</u>	L MARITIME DANGEROU	JS GOODS		
UN	1133	ADHESIVES	3		
	ΙΔΤΙΟΝΔΙ	L AIR TRANSPORT ASS	OCIATION - CARGO		
UN	1133	Adhesives	3		
			· · · ·	· · ·	
	1133 1133		OCIATION - PASSENGER	 	
UN		Adhesives	. 3		
		LATION FOR THE LAND	TRANSPORT OF HAZAR	DOUS MATERIALS AND	
WASTE					
UN	<u>1133</u>	ADHESIVOS		<u> </u>	



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SECTION 14. TRANSPORT INFORMATION (CONTINUED)

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

no

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ACETONE	67-64-1	5000	6967.670011

	Acute Health Hazard Chronic Health Hazard Fire Hazard		
SARA 313 Component(s)	PHENOL	108-95-2	1.02 %
	FORMALDEHYDE	50-00-0	0.12 %
California Prop 65	WARNING! This product co State of California to cause FORMALDEHYDE		wn to the
	VINYLCYCLOHEXENE, 4-	100-40-3	
	BENZENE	71-43-2	
	ACRYLONITRILE	107-13-1	
	1,3, BUTADIENE	106-99-0	



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SECTION 15. REGULATORY INFORMATION (CONTINUED)

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. VINYLCYCLOHEXENE, 4- 100-40-3

BENZENE 71-43-2

1,3, BUTADIENE 106-99-0

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

AUSTR : On the inventory, or in compliance with the inventory

NZIOC : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

KECL : On the inventory, or in compliance with the inventory

- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TSCA (USA)



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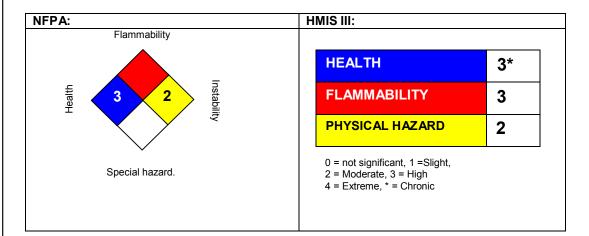
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SECTION 16. OTHER INFORMATION

Further information Revision Date: 05/26/2015



NFPA Flammable and Combustible Liquids Classification

not determined

Full text of H-Statements referred to under sections 2 and 3.

- H225 Highly flammable liquid and vapor.
- H227 Combustible liquid.
- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H336 May cause drowsiness or dizziness.
- H350 May cause cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.



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SECTION 16. OTHER INFORMATION (CONTINUED) List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet : ACGIH : American Conference of Industrial Hygienists BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organization

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization" IMDG : International Maritime Code for Dangerous Goods ISO : International Organization for Standardization logPow : octanol-water partition coefficient LCxx : Lethal Concentration, for xx percent of test population LDxx : Lethal Dose, for xx percent of test population. ICxx : Inhibitory Concentration for xx of a substance Ecxx : Effective Concentration of xx N.O.S.: Not Otherwise Specified OECD : Organization for Economic Co-operation and Development **OEL** : Occupational Exposure Limit P-Statement : Precautionary Statement PBT : Persistent , Bioaccumulative and Toxic **PPE : Personal Protective Equipment** STEL : Short-term exposure limit STOT : Specific Target Organ Toxicity TLV : Threshold Limit Value TWA : Time-weighted average vPvB : Very Persistent and Very Bioaccumulative WEL : Workplace Exposure Level CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act DOT : Department of Transportation FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act HMIRC : Hazardous Materials Information Review Commission HMIS : Hazardous Materials Identification System NFPA : National Fire Protection Association NIOSH : National Institute for Occupational Safety and Health OSHA : Occupational Safety and Health Administration PMRA : Health Canada Pest Management Regulatory Agency RTK : Right to Know WHMIS : Workplace Hazardous Materials Information System



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SECTION 16. OTHER INFORMATION (CONTINUED)

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