



Material Safety Data Sheet

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Section 1. Chemical product and company identification

Prepared For

Prepared by

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IN CASE OF EMERGENCY (HEALTH OR SPILLS):

CHEMTREC (US and Canada) (800) 424-9300

Product no. : 22000

Product - Class : Cetol 23 Plus

Customer Part Number :

Customer ShipTo ID:

Section 2. Hazards identification

Emergency overview : Warning!

Effects of Overexposure : HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.

CAUSES SEVERE SKIN IRRITATION.

CAUSES RESPIRATORY TRACT AND EYE IRRITATION.

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: EYE, LENS OR CORNEA.

SUSPECT CANCER HAZARD

CONTAINS MATERIAL WHICH MAY CAUSE CANCER

FLAMMABLE LIQUID AND VAPOR.

VAPOR MAY CAUSE FLASH FIRE.

CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LUNGS, LIVER, HEART, CENTRAL NERVOUS SYSTEM.

Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes : Irritating to eyes.

Other effects of eye contact may include : eye damage, redness, swelling, tearing,

Skin : Toxic in contact with skin. Severely irritating to the skin.

Other effects of skin contact may include: dehydration, dermatitis, discoloration, blistering,

Effects due to absorption through skin may include: CNS effects, dizziness, drowsiness, fatigue, headache, nausea, weakness,

Inhalation : Irritating to respiratory system.

Other effects of inhalation may include: anesthesia, CNS effects, confusion, cough, dizziness, drowsiness, fatigue, headache, incoordination, narcosis, nausea, pulmonary edema, weakness,

Ingestion : Toxic if swallowed.

Other effects of ingestion may include : CNS effects, diarrhea, dizziness, drowsiness, fatigue, gastric disturbances, headache, irritation, nausea, vomiting, weakness,

Potential chronic health effects : CARCINOGENIC EFFECTS: Classified 2B (Possible for human.) by IARC [ethyl benzene]. Classified SUSPECTED by Raw Material Supplier [methyl ethyl ketoxime]. Classified 2B (Possible for human.) by IARC [cobalt bis (2-ethylhexanoate)].
 MUTAGENIC EFFECTS: None by OSHA standard.
 TERATOGENIC EFFECTS: Classified POSSIBLE for human [ethyl benzene].
 Contains material which causes damage to the following organs: eye, lens or cornea.
 Contains material which may cause damage to the following organs: kidneys, lungs, liver, heart, central nervous system (CNS).

Medical conditions aggravated by over-exposure : skin disorders, respiratory conditions,

NOTICE: Reports have associated repeated and prolonged OVEREXPOSURE to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents of this package may be harmful or fatal.

See toxicological information (section 11)

Section 3. Composition, information on ingredients

Name	CAS #	% by weight	Vapor pressure	Exposure Limits (ACGIH-TLV/OSHA-PEL)
alkyd resin	.....	25 - 35	Not available.	Not available.
aliphatic hydrocarbon	64742-47-8	10 - 25	0.02 kPa (0.2 mm Hg) (at 20°C)	Not available.
mineral spirits	8052-41-3	10 - 25	Not available.	ACGIH TLV (United States). TWA: 100 ppm 8 hour(s). OSHA PEL (United States). TWA: 500 ppm 8 hour(s).
aliphatic solvent	.....	5 - 10	Not available.	Not available.
soya alkyd	.....	1 - 5	Not available.	Not available.
xylene, mixed isomers	1330-20-7	1 - 5	0.7 kPa (5.1 mm Hg) (at 20°C)	ACGIH TLV (United States). TWA: 100 ppm 8 hour(s). STEL: 150 ppm 15 minute(s). OSHA PEL (United States). TWA: 100 ppm 8 hour(s).
petroleum hydrocarbon	8052-41-3	1 - 5	0.07 kPa (0.5 mm Hg) (at 20°C)	ACGIH TLV (United States). TWA: 100 ppm 8 hour(s). OSHA PEL (United States). TWA: 500 ppm 8 hour(s).
tall oil fa alkyd	.....	1 - 5	Not available.	Not available.
ethyl benzene	100-41-4	0.1 - 1	0.9 kPa (7.1 mm Hg) (at 20°C)	ACGIH TLV (United States). TWA: 100 ppm 8 hour(s). STEL: 125 ppm 15 minute(s). OSHA PEL (United States). TWA: 100 ppm 8 hour(s).
cobalt bis (2-ethylhexanoate)	136-52-7	0.1 - 1	Not available.	Not available.

Section 4. First aid measures

- Eye contact** : Get medical attention immediately if symptoms occur. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses.
- Skin contact** : Get medical attention immediately if symptoms occur. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing, or wear gloves. Wash clothing before reuse. Thoroughly clean shoes before reuse.

- Inhalation** : Get medical attention immediately if symptoms occur. Move exposed person to fresh air. If fumes are still suspected to be present, the rescuer should wear an appropriate mask or a self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if irregular breathing, or respiratory arrest occurs provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire fighting measures

- Flammability of the product** : Flammable.
- Auto-ignition temperature** : The lowest known value is 232.22°C (450°F) (mineral spirits).
- Flash points** : Closed cup: 46°C (115°F). (Setaflash.)
- Flammable limits** : The greatest known range is Lower: 1% Upper: 7.5% (xylene, mixed isomers)
- Products of combustion** : These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...). Some metallic oxides.
- Fire Hazards in Presence of Various Substances/Conditions** : Flammable in presence of open flames, sparks and static discharge, of oxidizing materials.
DANGER - Rags, steel wool or waste soaked with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container. Waste should be understood to include contaminated articles, including spray booth filters and strippings.
- Explosion Hazards in Presence of Various Substances/Conditions** : Slightly explosive in presence of open flames, sparks and static discharge.
- Fire-fighting media and instructions** : SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
- Protective clothing (fire)** : Be sure to use an approved/certified respirator or equivalent.

Section 6. Accidental release measures

- Spill and Leak** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Do not touch or walk through spilled material.
If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.
- Dispose of as in Section 13.**

Section 7. Handling and storage

- Handling** : Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.
- Storage** : Store in an approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

OTHER PRECAUTIONS: All precautions must be observed. Empty container may retain product residues.

Section 8. Exposure controls, personal protection

Selection of personal protective equipment (PPE) is to be established by the employer performing a PPE hazard assessment. In the U.S.A, OSHA requires completion of a documented PPE hazard assessment as described in 29 CFR 1910.132.

Engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the work-station location.

Personal protection

Eyes : Safety glasses.

Body : Synthetic apron.

Respiratory : Wear appropriate respirator when ventilation is inadequate.

Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flattening should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Hands : Impervious gloves.

Protective clothing (pictograms) :



HYGIENIC PRACTICES: Good personal hygiene practices are required at all times when handling chemicals. These practices include, but are not limited to, washing when safety equipment is removed, at the end of each shift or when going on breaks and especially if contamination occurs.

Section 9. Physical and chemical properties

Physical state and Appearance : Liquid.

Color : Not available.

Odor : Not available.

pH : Not available.

Boiling/condensation point : The lowest known value is 137.222 to 142.778°C (279 to 289°F) (xylene, mixed isomers).

Melting/freezing point : Not available.

Specific gravity : Weighted average: 0.8 (Water = 1)

Vapor pressure : The highest known value is 0.7 kPa (5.1 mm Hg) (at 20°C) (xylene, mixed isomers).

Vapor density : Heavier than air

Volatility : Not available.

Odor threshold : Not available.

Evaporation rate : The highest known value is Lower than 1. (aliphatic hydrocarbon) compared to butyl acetate

VOC : 530 (g/l).

Solubility : Easily soluble in hot water.
Soluble in cold water.

Section 10. Stability and reactivity

Stability and reactivity : Stable.

Conditions of instability : heat, open flame, sparks, light, dusty conditions,

Incompatibility with various substances : Reactive with oxidizing agents.
Slightly reactive to reactive with acids.

Hazardous Reaction Products : Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Hazardous polymerization : Will not undergo hazardous polymerization.

Section 11. Toxicological information

Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
mineral spirits	LD50	>5000 mg/kg	Oral	Rat
	LD50	>3000 mg/kg	Dermal	Rabbit
	LC50	>5500 mg/m ³ (4 hour(s))	Inhalation	Rat
xylene, mixed isomers	LD50	4300 mg/kg	Oral	Rat
	LD50	>1700 mg/kg	Dermal	Rabbit
	LC50	5000 ppm (4 hour(s))	Inhalation	Rat
ethyl benzene	LD50	3500 mg/kg	Oral	Rat
	LD50	15486 mg/kg	Dermal	Rabbit
	LC50	55000 mg/m ³ (2 hour(s))	Inhalation	Rat

Section 12. Ecological information

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>	
aliphatic hydrocarbon xylene, mixed isomers	Oncorhynchus mykiss (LC50)	96 hour(s)	2.9 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour(s)	3.3 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour(s)	8.2 mg/l	
	Lepomis macrochirus (LC50)	96 hour(s)	8.6 mg/l	
	Lepomis macrochirus (LC50)	96 hour(s)	12 mg/l	
	Lepomis macrochirus (LC50)	96 hour(s)	13.3 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	13.4 mg/l	
	ethyl benzene	Daphnia magna (EC50)	48 hour(s)	2.93 mg/l
		Daphnia magna (EC50)	48 hour(s)	2.97 mg/l
		Selenastrum capricornutum (EC50)	48 hour(s)	7.2 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	4.2 mg/l	
	Pimephales promelas (LC50)	96 hour(s)	9.09 mg/l	
	Poecilia reticulata (LC50)	96 hour(s)	9.6 mg/l	

Products of degradation : These products are carbon oxides (CO, CO₂) and water, nitrogen oxides (NO, NO₂...). Some metallic oxides.

Toxicity of the products of biodegradation : The products of degradation are as toxic as the product itself.


Section 13. Disposal considerations




Waste information : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Consult your local or regional authorities.

Section 14. Transport information

Note: Information contained in this section may vary from the actual shipping description depending on quantity in containers, mode of shipment and use of exemptions.

<u>Regulatory information</u>	<u>UN number</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>Packing group</u>	<u>Label</u>	<u>Additional information</u>
DOT Classification	UN1263	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	3	III		Packaging instruction Passenger Aircraft Quantity limitation: 60 L Cargo Aircraft Quantity limitation: 220 L R Q : 3 6 2 2 . 1 7 1 b s (1642.71kgs) [xylene, mixed isomers]

TDG Classification	UN1263	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	3	III		-
IMDG Class	1263	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	3	III		Emergency schedules (EmS) F-E, S-E
IATA-DGR Class	1263	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	3	III		Quantity limitation - Passenger Aircraft - Limited quantity 10 L Quantity limitation - Passenger Aircraft 60 L Quantity limitation - Cargo Aircraft 220 L

Section 15. Regulatory information

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

U.S. Federal regulations : All components in this product have been verified as being on the TSCA Inventory.
(HAPS) Clean air act (CAA) 112 regulated toxic substances: methoxyethoxyethanol; xylene, mixed isomers; toluene; ethyl benzene; cumene; methyl alcohol; methyl isobutyl ketone; butoxyethoxyethanol; cobalt bis (2-ethylhexanoate)

SARA 313

Form R - Reporting requirements : xylene, mixed isomers 1.00 - 3.00
ethyl benzene 0.10 - 1.00
cobalt bis (2-ethylhexanoate) 0.10 - 1.00

State regulations : WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.: ethyl benzene, cobalt bis (2-ethylhexanoate), carbon black, toluene, quartz

International regulations

International lists : All components of this product are on the CEPA DSL inventory.

** All values in this section reported as percentage by weight, unless otherwise specified.

Section 16. Other information

**HMIS III ®
Hazardous Material
Information System
(U.S.A.)**

Health	*	1
Flammability		2
Physical Hazard		0
Personal protection		

WHMIS (Canada)



Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
Class D-1B: Material causing immediate and serious toxic effects (TOXIC).
Class D-2A: Material causing other toxic effects (VERY TOXIC).
Class D-2B: Material causing other toxic effects (TOXIC).

Notice to reader

The absence of a positive finding indicates that we believe, to the best of our knowledge, that the negative is true.

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