Ziegler, Inc.

CHEMTOOL INCORPORATED

MATERIAL SAFETY DATA SHEET
CAT CEMENT

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME	CAT CEMENT
Product number	Caterpillar, 5H-2471, 185-4591, 3-1510702, Chemtool 8436000000
PRODUCT USE	Contact Adhesive
SUPPLIER	Chemtool Incorporated P.O. Box 538 8200 Ridgefield Road Crystal Lake, IL 60039-0538 Tel: (815) 459-1250 Fax: (815) 459-1955
EMERGENCY TELEPHONE	Rocky Mountain Poison Center Denver, Colorado In USA and Canada - (800) 458-5924 Outside USA and Canada - +01-303-893-1322
***Date of last issue**	2008-10-17

2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
*HEXANE	110-54-3	20-40 %
*BUTANONE, 2- (COMMON NAME: METHYL ETHYL KETONE)	78-93-3	15-30 %
*ACETONE	67-64-1	10-20 %
*BENZENE, METHYL- (COMMON NAME: TOLUENE)	108-88-3	10-20 %
*PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL-	128-37-0	1-5 %
MAGNESIUM OXIDE (MgO)	1309-48-4	0.5-1.5 %
ZINC OXIDE (ZnO)	1314-13-2	0.2-1 %
ROSIN	8050-09-7	0.2-1 %
*TALC ($Mg_3H_2(SiO_3)_4$)	14807-96-6	<0-0.5 %

* This chemical(s) is hazardous according to OSHA/WHIMIS criteria

COMPOSITION COMMENTS Refer to section eight for exposure limits on ingredients. Chemical ingredients not regulated by OSHA, SARA, state or federal agencies are treated confidentially.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Highly flammable liquid. Irritating to eyes and skin. Harmful, danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility.

SENSITIZATION	No known information.
***CARCINOGENICITY**	IARC-1: CAS# 71-43-2, BENZENE <100ppm, CAS# 50-00-0, FORMALDEHYDE <10ppm.
TERATOGENICITY	At very high levels of n-hexane in air (1,000-10,000 ppm), signs of damage to sperm-forming cells in male rats occurred. Damage to the lungs occurred in rabbits and mice. People have rarely been exposed to these high levels of n-hexane, so it is not known if these effects would occur in people. It is not known if exposure to n-hexane can affect fertility in people. Experiments done with animals that were fed or breathed in n-hexane did not show any effect on fertility.
HEALTH WARNINGS	INHALATION. Repeated severe exposures or steady prolonged exposure to solvents may cause permanent injury. SKIN CONTACT. Slightly irritating. Repeated or prolonged contact can result in drying of the skin. The product/chemical has a defatting effect on the skin. EYE CONTACT. Strongly irritating. INGESTION. Can cause stomach ache and vomiting. Can cause internal injury.
ROUTE OF ENTRY	Inhalation. Ingestion. Skin and/or eye contact. Skin absorption.

4. FIRST AID MEASURES

INHALATION	Remove victim immediately from source of exposure. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. If breathing stops, provide artificial respiration. Get medical attention.
EYES	Important! Immediately rinse with water for at least 15 minutes. Get medical attention if any discomfort continues.
SKIN	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
INGESTION	DO NOT induce vomiting. Get medical attention immediately. Drink large amounts of water. Do not give victim anything to drink if he is unconscious.

5. FIRE FIGHTING MEASURES

FLASH POINT (°C)	-21C (-7F) TCC (Tag closed cup).
FLAMMABILITY LIMIT - LOWER(%)	N/D
FLAMMABILITY LIMIT - UPPER(%)	N/D
EXTINGUISHING MEDIA	Use: Alcohol resistant foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc.
SPECIAL FIRE FIGHTING PROCEDURES	Use water to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.
UNUSUAL FIRE & EXPLOSION HAZARDS	Vapors may ignite. Volume and pressure increases strongly when heated. Risk of container explosion in fire.
***HAZARDOUS COMBUSTION PRODUCTS**	Carbon dioxide (CO2). Carbon monoxide (CO). Hydrogen chloride (HCl). Oxides of: Nitrogen.

PROTECTIVE MEASURES IN CASE OF FIRE	Firefighters exposed to combustion gases/decomposition products should use a respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Minimize skin contact. Avoid breathing vapors. Wear an appropriate respirator if exposure exceeds recommended guidelines. Remove sources of ignition.
PRECAUTIONS TO PROTECT THE ENVIRONMENT	Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.
SPILL CLEAN-UP PROCEDURES	Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Provide good ventilation. Use appropriate protective clothing. Rinse area with water. Do not let washing down water contaminate ponds or waterways.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS	Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Do not use in confined spaces without adequate ventilation and/or respirator. Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Eye wash and emergency shower must be available at the work place.
STORAGE PRECAUTIONS	Keep away from heat, sparks and open flame. Store separated from: Acids. Oxidizing materials.
STORAGE CRITERIA	Flammable liquid storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
HEXANE	OSHA	500 ppm		1800 mg/m3	
	ACGIH	50 ppm (skin)		176 mg/m3	
	NIOSH	50 ppm			
BUTANONE, 2- (COMMON NAME: METHYL ETHYL KETONE)	OSHA	200 ppm		590 mg/m3	
	ACGIH	200 ppm	300 ppm	590 mg/m3	885 mg/m3
	MAK.	200 ppm (skin)			
ACETONE	OSHA	1000 ppm	N/E	2400 mg/m3	
	ACGIH	500 ppm	750 ppm	1188 mg/m3	1782 mg/m3
	NIOSH	250 ppm	N/E		
BENZENE, METHYL- (COMMON NAME: TOLUENE)	OSHA	200 ppm	300 ppm (ceil)		
	ACGIH	50 ppm (skin)	**A4		
	NIOSH	100 ppm	150 ppm		
PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL-	OSHA			N/E	N/E
	ACGIH			2 mg/m3 (ihl)**A4	(Vapor and aerosol)
	NIOSH	10 mg/m3			
ZINC OXIDE (ZnO)	OSHA	15 mg/m3 (total)		5 mg/m3 (resp)	
	ACGIH			2 mg/m3 (resp)	10 mg/m3 (resp)
TALC (Mg3H2(SIO3)4)	OSHA			20 mppcf	
	ACGIH			2 mg/m3 **A4 (e)	(resp)

NIOSH 2 mg/m3 (resp)

INGREDIENT COMMENTS **ACGIH A4: Not Classifiable as a Human Carcinogen.

PROTECTIVE EQUIPMENT

ENGINEERING CONTROLS	Use engineering controls to reduce air contamination to permissible exposure level.
VENTILATION	No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.
RESPIRATORS	No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.
PROTECTIVE GLOVES	Chemical resistant gloves required for prolonged or repeated contact. Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC.
EYE PROTECTION	Wear splash-proof eye goggles to prevent any possibility of eye contact.
PROTECTIVE CLOTHING	Wear appropriate clothing to prevent repeated or prolonged skin contact.
HYGIENIC WORK PRACTICES	Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE	Liquid.		
COLOR	Green.		
ODOR	Solvent.		
SOLUBILITY DESCRIPTION	Insoluble in water.		
DENSITY	0.80	**Temperature (°C)**	15.6 (60°F)
VAPOR DENSITY (air=1)	> 1.0		
VAPOR PRESSURE	N/D	**Temperature (°C)**	
EVAPORATION RATE	< 1.0	**Reference**	BuAc=1
pH-VALUE, CONC. SOLUTION	N/A		

10. STABILITY AND REACTIVITY

STABILITY	Normally stable.
CONDITIONS TO AVOID	Avoid heat, flames and other sources of ignition. Avoid contact with oxidizers or reducing agents.
HAZARDOUS POLYMERIZATION	Will not polymerize.

POLYMERIZATION DESCRIPTION	Not relevant.
HAZARDOUS DECOMPOSITION PRODUCTS	Hydrogen chloride (HCl). Oxides of: Carbon.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION

Repeated and prolonged overexposure to n-hexane has been associated with peripheral nerve tissue damage. Adverse effects include numbness, tingling, pain, and loss of muscle control in the extremities, disorientation, impaired vision and reflexes, decline in motor function and paralysis.
Prolonged or repeated overexposure to toluene, a component of this product, has been associated with reproductive effects in experimental animals and in long-term chemical abuse situations. Long-term overexposure to toluene has been associated with impaired color vision. Also, long-term overexposure to toluene in occupational environments have been associated with hearing damage.

COMPONENT	**HEXANE**
TOXICOLOGICAL DATA	Chronic toxicity. WHMIS (Canada) D2A - R48/20
TOXIC DOSE - LD 50	25000 mg/kg (oral rat)
TOXIC CONC. - LC 50	48000 ppm/4h (inh-rat)
REPRODUCTION TOXICITY	Toxic to Reproductive Health Category 3 in European Union.
COMPONENT	**BUTANONE, 2- (COMMON NAME: METHYL ETHYL KETONE)**
TOXICOLOGICAL DATA	Reproductive effects. WHMIS (Canada) D2A - R61 Irritating effects. WHMIS (Canada) Eye. D2B - R36
TOXIC DOSE - LD 50	3400 mg/kg (oral rat)
TOXIC CONC. - LC 50	2000 mg/l/4h (inh-rat)
REPRODUCTION TOXICITY	Methyl ethyl ketone is embryotic and/or fetotoxic in animal. MEK detected in maternal milk in human. Embryo or Fetus:death ihl-rat TCLo=1000ppm - Developmental Abnormalities: ihl-rat TCLo=3000ppm/6H - Musculoskeletal abnormalities ihl-rat TCLo= 1000ppm.
COMPONENT	**ACETONE**
TOXICOLOGICAL DATA	Irritating effects. WHMIS (Canada) Eye. D2B - R36
TOXIC DOSE - LD 50	5800 mg/kg (oral rat)
TOXIC DOSE - LD 50	20000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	2400 mg/kg (skn rbt)
TOXIC CONC. - LC 50	120 mg/l (inh-rat)
COMPONENT	**BENZENE, METHYL- (COMMON NAME: TOLUENE)**
TOXICOLOGICAL DATA	Reproductive effects. WHMIS (Canada) D2A - R63 Corrosive effects. WHMIS (Canada) Skin. D2B - R38
TOXIC DOSE - LD 50	5000 mg/kg (oral rat)
TOXIC CONC. - LC 50	N/A.
CARCINOGENICITY	IARC-3 designation: Not classifiable as to Carcinogenicity to Humans. EPA-D designation: Not classifiable as to human carcinogenicity.
COMPONENT	**MAGNESIUM OXIDE (MgO)**
COMPONENT	**ROSIN**

COMPONENT	**TALC (Mg3H2(SiO3)4)**
TOXICOLOGICAL DATA	Chronic toxicity. WHMIS (Canada) Inhalation. D2A - R49/20 Chronic toxicity. TCLo Inhalation. Rat. 6 mg/m3 csst.qc.ca
TOXIC DOSE - LD 50	No Information Available (NIA).
TOXIC CONC. - LC 50	No Information Available (NIA).
CARCINOGENICITY	IARC-3 designation: Not classifiable as to Carcinogenicity to Humans. MAK-3 designation: Substances which cause concern that they could be carcinogenic for man.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION	No data on possible environmental effects have been found.
COMPONENT	**MAGNESIUM OXIDE (MgO)**
COMPONENT	**ROSIN**
COMPONENT	**TALC (Mg3H2(SiO3)4)**

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS	Confirm disposal procedures with environmental engineer and local regulations.
WASTE CLASSIFICATION	D001 Ignitible.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME	Consumer Commodity
DOT HAZARD CLASS	ORM-D (Other Regulated Material D).
LABEL FOR TRANSPORT	

UN No. SEA	UN1133
IMDG CLASS	3
IMDG PACK GR.	II
SEA TRANSPORT NOTES	Adhesives
UN No., AIR	UN1133

10080 - CAT CEMENT

ICAO CLASS	3
AIR PACK GR.	II
AIR TRANSPORT NOTES	Adhesives

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

COMPONENT	SARA 302	CERCLA	SARA 313
HEXANE	No	1 lb (air)	Yes
BUTANONE, 2- (COMMON NAME: METHYL ETHYL KETONE)	No	5 000 lbs	Yes
ACETONE	No	5 000 lbs	No
BENZENE, METHYL- (COMMON NAME: TOLUENE)	No	1 000 lbs	Yes
PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL-	No	No	No
MAGNESIUM OXIDE (MgO)	No	No	No
ZINC OXIDE (ZnO)	No	***	N982 - Zn
ROSIN	No	No	No
TALC (Mg3H2(SiO3)4)	No	No	No

See Section 2 for Addtional Information

REGULATORY STATUS

*** Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance. See 50 Federal Register 13456 (April 4, 1985). Values in Section 313 column represent Category Codes for reporting under Section 313.

CLEAN AIR ACT

SARA HAZARD CATEGORIES Acute Chronic Fire

US STATE REGULATIONS

COMPONENT	CA	MA	FL	MN	NJ	PA	RI
BUTANONE, 2- (COMMON NAME: METHYL ETHYL KETONE)	No					EH	
ACETONE						EH	
BENZENE, METHYL- (COMMON NAME: TOLUENE)	R	Yes			Yes	EH	Yes
ZINC OXIDE (ZnO)					Yes	EH	

STATE REGULATORY STATUS

CALIFORNIA PROPOSITION 65: This product may contain the following chemical(s) considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity, and for which warnings are now required:
Toluene, developmental hazard, CAS # 108-88-3, 10-20%
Lead, <1ppm
Cadmium, <1ppm
Formaldehyde, cancer hazard, CAS # 50-00-0 <10 ppm
Benzene, CAS # 71-43-2, <100ppm
PENNSYLVANIA RIGHT-TO-KNOW: This product contains the following chemicals that the state of Pennsylvania has identified as Special Hazardous Substances (SHS), Environmental Hazards (EH), or both (ESHS). The PA regulations require that the MSDS identify all SHS or EH chemicals by chemical name, common name, and CAS

Number if they comprise 0.01% or more.
2-Butanone, Environmental Hazard, CAS# 78-93-3
Toluene, Environmental Hazard, CAS # 108-88-3
Zinc compounds regulated under CERCLA and SARA 313, Environmental Hazard

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS

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.

LABEL(S) FOR SUPPLY

CONTROLLED PRODUCT CLASSIFICATION

B2 - Flammable Liquids
D2A - Very Irritating and/or Very Chronically Toxic Materials
D2B - Irritating and/or Chronically Toxic Materials

***Risk phrases**

R-11 Highly flammable.
R-22 Harmful if swallowed.
R-23 Toxic by inhalation.
R-25 Toxic if swallowed.
R-36/38 Irritating to eyes and skin.
R-48/20 Harmful, danger of serious damage to health by prolonged exposure through inhalation.

GLOBAL INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
MAGNESIUM OXIDE (MgO)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	No
ZINC OXIDE (ZnO)	NPRI	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
ROSIN	Yes?	Yes						
TALC (Mg3H2(SiO3)4)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	No
BUTANONE, 2- (COMMON NAME: METHYL ETHYL KETONE)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
ACETONE	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
BENZENE, METHYL- (COMMON NAME: TOLUENE)	DSL	Yes	EINECS	Yes	PRTR1	Yes	Yes	Yes
PHENOL, 2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL-	DSL	Yes	EINECS	Yes	PRTR1	Yes	Yes	Yes
HEXANE	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes

CANADA CEPA: All components of this product comply with new substance notification requirements under the Canadian Environmental Protection Act (CEPA).

***USA (TSCA)**

All components in this product are listed on the US Toxic Substances Control Act (TSCA) Inventory or are exempt from TSCA Inventory requirements.

16. OTHER INFORMATION

NFPA-HMIS HAZARD RATING

HEALTH

Temporary incapacitation, injury (2) - HMIS/NFPA

FLAMMABILITY	Ignites easily (3) - HMIS/NFPA
REACTIVITY	Normally Stable (0) - HMIS/NFPA
***NPCA HMIS HAZARD INDEX**	Moderate: Moderately Toxic - May be harmful if inhaled or absorbed (2).
PERSONAL PROTECTION INDEX	G - Safety Eyewear, Gloves and Vapor Respirator
***NPCA HMIS FLAMMABILITY INDEX**	Ignites easily (3).
***REVISION COMMENTS**	* Information revised since previous MSDS version. Section 5: Flash Point Section 15: US Regulatory Status. Section 15: Risk Phrases Section 15: WHMIS Section 2: Percentage Composition
TARIFF CODE	3506.10.0000, 240ml can
***PREPARED BY**	John Dingess James P. McBriarty Maria Maka
***REVISION No.**	3
***Replacement of MSDS generated**	2004-04-15
***DATE**	2008-10-17
DISCLAIMER	While the information and recommendations set forth herein are believed to be accurate as of the date thereof, the company makes no warranty with respect thereto and disclaims all liability from reliance therein.

*** Information revised since previous MSDS version**

PRINTING DATE: 2008-10-17

CHEMTOOL INCORPORATED

MATERIAL SAFETY DATA SHEET
CAT ANTI-SEIZE COMPOUND (HIGH TEMP)

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME	CAT ANTI-SEIZE COMPOUND (HIGH TEMP)
PART No.	Caterpillar, 4C-5597 OBS, 4C-5598, 4C-5599, 5P-3931, Chemtool, 380410
PRODUCT USE	Lubricating Grease
SUPPLIER	Chemtool Incorporated P.O. Box 538 8200 Ridgefield Road Crystal Lake, IL 60039-0538 USA Tel: (815) 459-1250 Fax: (815) 459-1955
EMERGENCY TELEPHONE	Rocky Mountain Poison Center Denver, Colorado In USA and Canada - (800) 458-5924 Outside USA and Canada - +01-303-893-1322
Date of last issue	2008-10-07

2. COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
DISTILLATES, PETROLEUM, BASE OILS 325 SN (CAS NOS 64742-54-7 AND 64742-65-0)	Mixture	30-50 %
*GRAPHITE	7782-42-5	10-25 %
DISTILLATES, PETROLEUM, REFINED HEAVY NAPHTHENIC (CAS 64741-96-4 OR 64742-52-5)	Variable	10-20 %
*COPPER	7440-50-8	10-20 %
*CALCIUM HYDROXIDE (Ca(OH)2)	1305-62-0	5-10 %
*NITROUS ACID, SODIUM SALT (COMMON NAME: SODIUM NITRITE)	7632-00-0	1-2 %
*SILICA, CRYSTALLINE (QUARTZ FROM NATURAL GRAPHITE)	14808-60-7A	0.2-1 %

* This chemical(s) is hazardous according to OSHA/WHMIS criteria

COMPOSITION COMMENTS Refer to section eight for exposure limits on ingredients. Chemical ingredients not regulated by OSHA, SARA, state or federal agencies are treated confidentially.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Irritating to eyes. Limited evidence of a carcinogenic effect. Exposure to vapors generated at high temperatures may cause respiratory irritation.

SENSITIZATION	No known information.
CARCINOGENICITY	See Section 11 for carcinogenicity data of ingredients.
TERATOGENICITY	No known information.
HEALTH WARNINGS	INHALATION. Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely due to the low volatility of this product. SKIN CONTACT. Slightly irritating. Repeated or prolonged contact can result in drying of the skin. EYE CONTACT. Irritating. INGESTION. Can cause stomach ache and vomiting. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis.
ROUTE OF ENTRY	Inhalation. Skin and/or eye contact. Ingestion.

4. FIRST AID MEASURES

INHALATION	Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor of hot product, immediately remove from source of exposure. Move the exposed person to fresh air at once. For breathing difficulties oxygen may be necessary. Get medical attention if any discomfort continues.
EYES	Rinse the eye with water immediately. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
SKIN	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
INGESTION	DO NOT INDUCE VOMITING! Get medical attention immediately!

5. FIRE FIGHTING MEASURES

FLASH POINT (°C)	204 (400°F) Cd OC (Cleveland open cup).
FLAMMABILITY LIMIT - LOWER(%)	N/D
FLAMMABILITY LIMIT - UPPER(%)	N/D
EXTINGUISHING MEDIA	Use: Foam. Carbon dioxide (CO_2). Dry chemicals, sand, dolomite etc.
SPECIAL FIRE FIGHTING PROCEDURES	Use water to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Keep run-off water out of sewers and water sources. Dike for water control.
HAZARDOUS COMBUSTION PRODUCTS	Acrid smoke/fumes. Oxides of: Carbon.

PROTECTIVE MEASURES IN CASE OF FIRE Self-contained breathing equipment and chemical resistant clothing recommended.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS Minimize skin contact. Remove sources of ignition.

PRECAUTIONS TO PROTECT THE ENVIRONMENT Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.

SPILL CLEAN-UP PROCEDURES Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Provide good ventilation. Use appropriate protective clothing. Rinse area with water. Do not let washing down water contaminate ponds or waterways.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Containers to be kept tightly closed. Eye wash and emergency shower must be available at the work place. Product contains nitrites, DO NOT mix with amines.

STORAGE PRECAUTIONS Keep away from heat, sparks and open flame. Store separated from: Acids. Oxidizing materials.

STORAGE CRITERIA Chemical storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
DISTILLATES, PETROLEUM, BASE OILS 325 SN (CAS NOS 64742-54-7 AND 64742-65-0)	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
GRAPHITE	OSHA			15 mppcf	
	ACGIH			2 mg/m3 (resp)	except graphite fibers
	NIOSH	2.5 mg/m3 (resp)			
DISTILLATES, PETROLEUM, REFINED HEAVY NAPHTHENIC (CAS 64741-96-4 OR 64742-52-5)	OSHA			5 mg/m3 (oil mist)	
	ACGIH			5 mg/m3 (oil mist)	10 mg/m3 (oil mist)
COPPER	OSHA			1 mg/m3	
	ACGIH	0.1 mg/m3 (inhal)	NIC 2005 A4	1 mg/m3	
CALCIUM HYDROXIDE (Ca(OH)2)	OSHA	15 mg/m3 (total)		5 mg/m3 (resp)	
	ACGIH			5 mg/m3	
	NIOSH	5 mg/m3			
SILICA, CRYSTALLINE (QUARTZ FROM NATURAL GRAPHITE)	OSHA	0.3 mg/m3 (total)		0.1 mg/m3 (resp)	
	ACGIH			0.05 mg/m3 (resp)	**A2

	NIOSH	0.05 mg/m3 **Ca

INGREDIENT COMMENTS

**ACGIH A2: Suspected Human Carcinogen.
**NIOSH Ca: Potential Occupational Carcinogen.

PROTECTIVE EQUIPMENT

ENGINEERING CONTROLS	Use engineering controls to reduce air contamination to permissible exposure level.
VENTILATION	No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.
RESPIRATORS	No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.
PROTECTIVE GLOVES	Chemical resistant gloves required for prolonged or repeated contact.
EYE PROTECTION	Wear splash-proof eye goggles to prevent any possibility of eye contact.
PROTECTIVE CLOTHING	Wear appropriate clothing to prevent repeated or prolonged skin contact.
HYGIENIC WORK PRACTICES	Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE	Grease.		
COLOR	Red brown.		
ODOR	Mild (or faint). Hydrocarbon.		
SOLUBILITY DESCRIPTION	Insoluble in water.		
DENSITY	1.20	**Temperature (°C)**	15.6 (60°F)
VAPOR DENSITY (air=1)	> 5		
VAPOR PRESSURE	< 0.1 mmHg	**Temperature (°C)**	20 (68°F)
EVAPORATION RATE	< 0.01	**Reference**	BuAc=1

10. STABILITY AND REACTIVITY

STABILITY	Normally stable.
CONDITIONS TO AVOID	Avoid contact with acids and oxidizing substances.
HAZARDOUS POLYMERIZATION	Will not polymerize.

HAZARDOUS DECOMPOSITION PRODUCTS	Oxides of: Carbon.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION	No experimental toxicological data on the preparation as such is available.
COMPONENT	**DISTILLATES, PETROLEUM, BASE OILS 325 SN (CAS NOS 64742-54-7 AND 64742-65-0)**
TOXICOLOGICAL DATA	Carcinogenicity. IP 346 0.36%
COMPONENT	**GRAPHITE**
TOXIC DOSE - LD 50	N/A.
TOXIC CONC. - LC 50	N/A.
CARCINOGENICITY	OSHA: Not regulated. NTP: Not listed. IARC: Not listed as a Group 1, 2A, or 2B agent.
COMPONENT	**DISTILLATES, PETROLEUM, REFINED HEAVY NAPHTHENIC (CAS 64741-96-4 OR 64742-52-5)**
TOXICOLOGICAL DATA	Carcinogenicity. IP 346 <3% Corrosive effects. Eye. Rabbit. < 15/110 Corrosive effects. Skin. Rabbit. < 0.5/8
TOXIC DOSE - LD 50	> 5000 mg/kg (oral rat)
TOXIC DOSE - LD 50 SKIN	> 3000 mg/kg (skn rat)
TOXIC CONC. - LC 50	N/A.
CARCINOGENICITY	Base oils in this product contain < 3% DMSO Extractable total polycyclic aromatic compound (PAC) per IP 346.
COMPONENT	**COPPER**
TOXIC DOSE - LD 50	N/A.
TOXIC CONC. - LC 50	N/A.
COMPONENT	**CALCIUM HYDROXIDE (Ca(OH)2)**
TOXICOLOGICAL DATA	Corrosive effects. Eye irritation test. Eye. Rabbit. severe Corrosive effects. WHMIS (Canada) E - R35
TOXIC DOSE - LD 50	7340.00 mg/kg (oral rat)
COMPONENT	**NITROUS ACID, SODIUM SALT (COMMON NAME: SODIUM NITRITE)**
TOXICOLOGICAL DATA	Irritating effects. 24 hours. Eye. Rabbit. mild Acute toxicity. WHMIS (Canada) D1B KNO2
TOXIC DOSE - LD 50	85-108 mg/kg (oral rat)
TOXIC DOSE - LD 50	180 mg/kg (oral rat)
TOXIC CONC. - LC 50	N/A.
COMPONENT	**SILICA, CRYSTALLINE (QUARTZ FROM NATURAL GRAPHITE)**
TOXICOLOGICAL DATA	Carcinogenicity. WHMIS (Canada) D2A - R40 > 0.1% Chronic toxicity. WHMIS (Canada) D2A - R22 > 1.0%
TOXIC DOSE - LD 50	N/A.
TOXIC CONC. - LC 50	N/A.
CARCINOGENICITY	OSHA: Not regulated. IARC-1: The agent is carcinogenic to humans with sufficient

evidence in humans. NTP-K designation: Known to be a carcinogen with sufficient evidence from studies in humans.

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION No data on possible environmental effects have been found.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT HAZARD CLASS Not regulated.

TDGR CLASS Not Regulated.

SEA TRANSPORT NOTES Not regulated per IMDG.

AIR TRANSPORT NOTES Not regulated per IATA.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

COMPONENT	SARA 302	CERCLA	SARA 313
DISTILLATES, PETROLEUM, BASE OILS 325 SN (CAS NOS 64742-54-7 AND 64742-65-0)	No	No	No
GRAPHITE	No	No	No
DISTILLATES, PETROLEUM, REFINED HEAVY NAPHTHENIC (CAS 64741-96-4 OR 64742-52-5)	No	No	No
COPPER	No	5 000 lbs	Yes
CALCIUM HYDROXIDE (Ca(OH)2)	No	No	No
NITROUS ACID, SODIUM SALT (COMMON NAME: SODIUM NITRITE)	No	100 lbs	Yes
SILICA, CRYSTALLINE (QUARTZ FROM NATURAL GRAPHITE)	No	No	No

See Section 2 for Additional Information

CLEAN AIR ACT

SARA HAZARD CATEGORIES Acute Chronic

US STATE REGULATIONS

13908 - CAT ANTI-SEIZE COMPOUND (HIGH TEMP)

COMPONENT	CA	MA	FL	MN	NJ	PA	RI
NITROUS ACID, SODIUM SALT (COMMON NAME: SODIUM NITRITE)						EH	
SILICA, CRYSTALLINE (QUARTZ FROM NATURAL GRAPHITE)	C						

STATE REGULATORY STATUS

PROPOSITION 65 REPRODUCTIVE HAZARD: This product may contain the following chemical(s) considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing reproductive toxicity, and for which warnings are now required:
Crystalline silica, cancer hazard, CAS# 14808-60-7
N-Methylpyrrolidone, developmental hazard, CAS# 872-50-4 traces < 35 ppm
PENNSYLVANIA RIGHT-TO-KNOW: This product contains the following chemicals that the state of Pennsylvania has identified as Special Hazardous Substances (SHS). Environmental Hazards (EH), or both (ESHS). The PA regulations require that the MSDS identify all SHS or EH chemicals by chemical name, common name, and CAS Number if they comprise 0.01% or more.
Copper compounds regulated under CERCLA and SARA 313, Environmental Hazard
Sodium Nitrite, Environmental Hazard, CAS# 7632-00-0

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS

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.

LABEL(S) FOR SUPPLY

CONTROLLED PRODUCT CLASSIFICATION

D2A - Chronic Very Toxic Material
D2B - Chronic Toxic Material

Risk phrases

R-36 Irritating to eyes.
R-40 Limited evidence of a carcinogenic effect.

COMPONENT	GLOBAL INVENTORIES CAN	US	EU	AUS	JAP	KOR	PHLP	CHN
SILICA, CRYSTALLINE (QUARTZ FROM NATURAL GRAPHITE)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
DISTILLATES, PETROLEUM, BASE OILS 325 SN (CAS NOS 64742-54-7 AND 64742-65-0)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
GRAPHITE	DSL	Yes	EINECS	Yes	No	Yes	Yes	Yes
DISTILLATES, PETROLEUM, REFINED HEAVY NAPHTHENIC (CAS 64741-96-4 OR 64742-52-5)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
COPPER	DSL	Yes	EINECS	Yes	No	Yes	Yes	Yes
CALCIUM HYDROXIDE (Ca(OH)2)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
NITROUS ACID, SODIUM SALT (COMMON NAME: SODIUM NITRITE)	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes

CANADA CEPA: All components of this product comply with new substance

notification requirements under the Canadian Environmental Protection Act (CEPA).

16. OTHER INFORMATION

	NFPA-HMIS HAZARD RATING
HEALTH	Irritation; minor residual injury (1) - HMIS/NFPA
FLAMMABILITY	Burns only if pre-heated (1) - HMIS/NFPA
REACTIVITY	Normally Stable (0) - HMIS/NFPA
PERSONAL PROTECTION INDEX	B - Safety Eyewear and Gloves
REVISION COMMENTS	Section 2: Ingredients Section 2: Percentage Composition Section 11: Toxicological Information Section 15: WHMIS
PREPARED BY	John Dingess James McBriarty, Maria Maka
Replacement of MSDS generated	2008-04-30
DATE	2008-10-07
PRINTING DATE:	2008-10-07
DISCLAIMER	While the information and recommendations set forth herein are believed to be accurate as of the date thereof, the company makes no warranty with respect thereto and disclaims all liability from reliance therein.

* Information revised since previous MSDS version

Conforms to ANSI Z400.1-2004 Standard (United States, Canada, Mexico).

Material Safety Data Sheet

Supplemental Coolant Additive

1. Product and company identification

Common name	: **Supplemental Coolant Additive**
Code	: T80001
Material uses	: Additive.
Supplier/Manufacturer	: Dober Group, 333, W. 195th Street, Glenwood, IL 60425
In case of emergency	: US/Canada: 303-893-1322/800-458-5924
MSDS authored by:	: Kemika XXI Inc. + 1-450-435-7475 01/30/2007

2. Hazards identification

Physical state	: Liquid.
Odor	: Slight.
Color	: Red purple.
Hazard status	: This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico.
Emergency overview	: WARNING! MAY BE HARMFUL IF SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. Do not ingest. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Eyes	: Irritating to eyes.
Skin	: Irritating to skin.
Inhalation	: Irritating to respiratory system.
Ingestion	: May be harmful if swallowed.
Potential chronic health effects	: Carcinogenic effects Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. Mutagenic effects Not available. Teratogenic effects Not available.
Medical conditions aggravated by over-exposure	: Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation, leading to frequent attacks of bronchial infection. Repeated or prolonged exposure to the substance may cause central nevous system (CNS), kidney and blood damage.

See toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Sodium nitrite	7632-00-0	1 - 5
Sodium Tetraborate	1330-43-4	1 - 5
Disodium metasilicate	6834-92-0	1 - 5
Sodium nitrate	7631-99-4	1 - 5

Canada

Name	CAS number	%
Sodium nitrite	7632-00-0	3 - 5
Sodium Tetraborate	1330-43-4	3 - 5
Disodium metasilicate	6834-92-0	3 - 5
Sodium nitrate	7631-99-4	1 - 3

Mexico

Name	UN number	IDLH	Classification H	F	R	Special	CAS number	%
Sodium nitrite	UN1500	-	2	0	1	OX	7632-00-0	1 - 5
Disodium metasilicate	UN3253	-	3	0	0		6834-92-0	1 - 5
Sodium nitrate	UN1498	-	1	0	1	OX	7631-99-4	1 - 5
Sodium Tetraborate	Not regulated.	-	0	0	0		1330-43-4	1 - 5

4. First aid measures

Eye contact : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

Skin contact : Wash with soap and water. Get medical attention if symptoms occur.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Notes to physician : No specific antidote. Medical staff must contact Poison Control Center.

5. Fire-fighting measures

Flammability of the product : Will burn at high temperature.

Products of combustion : These products are nitrogen oxides. Some metallic oxides.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : Not available.
No specific hazard.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof 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.

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. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States

Product name	Exposure limits
Sodium Tetraborate	**ACGIH TLV (United States, 1/2006).** STEL: 6 mg/m³ 15 minute(s). TWA: 2 mg/m³ 8 hour(s). **NIOSH REL (United States, 12/2001).** TWA: 1 mg/m³ 10 hour(s). **OSHA PEL 1989 (United States, 3/1989).** TWA: 10 mg/m³ 8 hour(s).
Sodium nitrate	**ACGIH TLV (United States).** TWA: 10 mg/m³ 8 hour(s). Form: Dust

Canada

Product name	Exposure limits
Sodium Tetraborate	**ACGIH TLV (United States, 1/2006).** STEL: 6 mg/m³ 15 minute(s). TWA: 2 mg/m³ 8 hour(s).
Sodium nitrate	**ACGIH TLV (United States).** TWA: 10 mg/m³ 8 hour(s). Form: Dust

Mexico

Product name	Exposure limits
Sodium Tetraborate	**NOM-010-STPS (Mexico, 9/2000).** CPT: 1 mg/m³ 8 hour(s). Form: All forms.
Sodium nitrate	**ACGIH TLV (United States).** TWA: 10 mg/m³ 8 hour(s). Form: Dust

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Eyes : Safety glasses. Goggles, face shield or other full-face protection should be worn if there is a risk of direct exposure to aerosols or splashes.

Skin : Additional body garments should be used to avoid exposed skin surfaces (e.g. sleevelets, apron, disposable suit etc.), based on the task being performed. Appropriate techniques should be used to remove potentially contaminated clothing.

Respiratory : A respirator is not needed under normal and intended conditions of product use. Wear appropriate respirator when ventilation is inadequate.

Hands : Use chemical-resistant, impervious gloves.

HMIS Code/Personal protective equipment : B

Personal protection in case of a large spill : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear. Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

Physical state : Liquid.
Flash point : Closed cup: Higher than 93.3°C (200°F)(Pensky-Martens.)
Color : Red purple.
Odor : Slight.
pH : 12 [Basic.]
Boiling/condensation point : The lowest known value is 100°C (212°F) (Water).
Melting/freezing point : -8°C (17.6°F)
Relative density : 1.121 (Water = 1)
Vapor pressure : 2.4 kPa (18 mm Hg) (at 20°C)
Vapor density : <1 (Air = 1)
Evaporation rate : <1 compared with Ether (anhydrous).
Viscosity : Dynamic: 8 cP
Solubility : Miscible in water.

10 . Stability and reactivity

Stability and reactivity : The product is stable.
Incompatibility with various substances : Reactive with reducing agents, acids.
Hazardous polymerization : Will not occur.
Conditions of reactivity : Not applicable.

11 . Toxicological information

Toxicity data

Product/ingredient name	Test	Result	Route	Species
Sodium nitrite	LD50	180 mg/kg	Oral	Rat
	LD50	186 mg/kg	Oral	Rabbit
	LD50	175 mg/kg	Oral	Mouse
Disodium metasilicate	LD50	1153 mg/kg	Oral	Rat
	LD50	770 mg/kg	Oral	Mouse
Sodium nitrate	LD50	1267 mg/kg	Oral	Rat
	LD50	2680 mg/kg	Oral	Rabbit

Acute Effects

Eyes : Irritating to eyes.
Skin : Irritating to skin.
Inhalation : Irritating to respiratory system.
Ingestion : May be harmful if swallowed.
Potential chronic health effects : Carcinogenic effects Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
Mutagenic effects Not available.
Teratogenic effects Not available.

12 . Ecological information

Ecotoxicity data

Product/ingredient name	Species	Period	Result
Sodium nitrite	Oncorhynchus mykiss (LC50)	96 hour(s)	0.11 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.14 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.15 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.17 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.18 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	0.19 mg/l
Sodium nitrate	Lepomis macrochirus (LC50)	96 hour(s)	9000 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	9400 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	10000 mg/l

Environmental precautions : No known significant effects or critical hazards.

BOD and COD : The BOD is 1000 mg/kg [28 day/days], 0 mg/kg [5 day/days]. The COD is 52000 mg/kg.

Biodegradable/OECD : Not readily biodegradable.

Products of degradation : These products are nitrogen oxides. Some metallic oxides.

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

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, 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 and local authority requirements.

14 . Transport information

NAERG : 171

Regulatory information	Proper shipping name	Class	UN number	PG	Label
UN / IMDG / IATA Classification	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	UN3082	III	
DOT Classification	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	UN3082	III	
TDG Classification	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	UN3082	III	

Additional information

UN IMDG IATA DOT TDG

This product is not regulated in quantities less than 2000lbs/907.2 Kg per single container. This calculation is based on Sodium Nitrite (RQ 100 Pounds) present up to 5% of finished product.

15 . Regulatory information

United States

HCS Classification : Irritating material

U.S. Federal regulations : TSCA 5(a)2 final significant rules: Sodium nitrite
TSCA 8(b) inventory: All components listed.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Sodium nitrite; Sodium Tetraborate; Disodium metasilicate; Sodium nitrate
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium nitrite: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Sodium Tetraborate: Immediate (acute) health hazard; Disodium metasilicate: Immediate (acute) health hazard, Delayed (chronic) health hazard; Sodium nitrate: Fire hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Sodium nitrite; Sodium hydroxide
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements :	Sodium nitrite	7632-00-0	1 - 5
	Sodium nitrate	7631-99-4	1 - 5
Supplier notification :	Sodium nitrite	7632-00-0	1 - 5
	Sodium nitrate	7631-99-4	1 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : **WARNING:** This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Phenolphtalein	Yes.	No.	No.	No.

Canada

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).

DSL : All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR, the United States OSHA and the Mexican NOM -018-STPS-2000. This MSDS contains all the information required by the CPR, OSHA, the American National Standard Institute (ANSI) Z400.1 and NOM -018-STPS-2000.

Mexico

Classification :

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed. in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.) : MAY BE HARMFUL IF SWALLOWED.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

Hazardous Material Information System (U.S.A.) :

HMIS RATING

Health	*	1
Fire hazard		0
Physical Hazard		0
Personal protection		B

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal
See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :

References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

Date of issue : 01/30/2007
Date of previous issue : 10/31/2006
Version : 3

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

The Valspar Corporation
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Material Identification

Product ID: **4C-4185 FORMLA AAY0500**
Product Name: **CAT HIWAY YELLOW PAINT - HIGH GLOSS**
Product Use: Paint product.
Print date: 25/Feb/2008
Revision Date: 23/Jan/2008

Company Identification
The Valspar Corporation
1215 Nelson Blvd.
Rockford, IL 61104
Manufacturer's Phone: 1-877-724-0597

24-Hour Medical Emergency
Phone:1-303-893-1322, 1-800-458-5924 (TOLL FREE US & CANADA)

2. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Common Name CAS-No	Approx. Weight %	Chemical name
NAPHTHA 64742-88-7	25 - 30	SOLVENT NAPHTHA, PETROLEUM, MEDIUM ALIPH
VM&P NAPHTHA 64742-89-8	10 - 15	SOLVENT NAPHTHA, PETROLEUM, LIGHT ALIPH
TOLUENE 108-88-3	1 - 5	Toluene
XYLENE 1330-20-7	1 - 5	Xylenes (o-, m-, p- isomers)
TITANIUM DIOXIDE 13463-67-7	1 - 5	Titanium dioxide
ETHYL 3-ETHOXYPROPIONATE 763-69-9	1 - 5	Ethyl 3-ethoxypropionate
ETHYLBENZENE 100-41-4	.1 - 1	Ethyl benzene

If this section is blank there are no hazardous components per OSHA guidelines.

3. HAZARDS IDENTIFICATION

Primary Routes of Exposure:
Inhalation
Ingestion
Skin absorption

Emergency Overview:
This section not in use.

This product contains ingredients that may contribute to the following potential acute health effects:

Inhalation Effects:
Harmful if inhaled. May affect the brain, nervous system, or respiratory system, causing dizziness, headache, nausea or respiratory irritation.

Eye Contact:
Corneal injury/eye damage.

Skin Contact:
May cause moderate skin irritation.

Acute Ingestion:
None known

Other Effects:
May cause central nervous system depression. May cause liver damage. May cause kidney damage.

This product contains ingredients that may contribute to the following potential chronic health effects:

Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Possible birth defects hazard. Contains ingredients which may cause birth defects based on animal data. May cause liver damage. May cause kidney damage.

See Section 11 for toxicological information about Mutagens, Teratogens and Carcinogens.

If this section is blank, no information is available.

4. FIRST AID MEASURES

Inhalation:
If affected by inhalation, move victim to fresh air. If symptoms persist, seek medical attention.

Eye Contact:
In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

Skin Contact:
In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. If irritation persists get medical attention. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean contaminated shoes.

Ingestion:
If swallowed, contact medical personnel immediately to determine best course of action.

Medical conditions aggravated by exposure: Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	50° F (10° C) TCC/PM
Lower explosive limit:	1 %
Upper explosive limit:	7 %
Autoignition temperature:	Not available. ° F (° C)
Sensitivity to impact:	No.
Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:
Contaminated rags, wipes, saw dust, etc., may catch fire spontaneously. Store waste under water in closed metal containers or in approved self-closing containers designed to prevent spontaneous combustion until disposed of in compliance with applicable regulations. Contains oxidizable materials.

Extinguishing media:
Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:
Use water spray to cool nearby containers and structures exposed to fire. Firefighters should be equipped with self-contained breathing apparatus and turn out gear.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:
Ventilate area. Avoid breathing of vapors. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 5, "Unusual Fire and Explosion Hazards", for proper container and storage procedures. Remove sources of ignition. Remove with inert absorbent and non sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:
Keep away from heat, sparks, and flames. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:
Avoid contact with eyes. Wear chemical goggles if there is the possibility of contact or splashing in the eye.

Skin protection:
Appropriate chemical resistant gloves should be worn.To prevent skin contact wear protective clothing covering all exposed areas.

Respiratory protection:
If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation
Required when spraying or applying in confined area. Ventilation equipment should be explosion proof. Eliminate ignition sources.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Common Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations

TOLUENE 108-88-3	1 - 5	200 ppm	300 ppm	
XYLENE 1330-20-7	1 - 5	435 mg/m³ 100 ppm		
TITANIUM DIOXIDE 13463-67-7	1 - 5	15 mg/m³ Total dust.		
ETHYLBENZENE 100-41-4	.1 - 1	435 mg/m³ 100 ppm		

ACGIH Threshold Limit Value (TLV's)

Common Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
TOLUENE 108-88-3	1 - 5	50 ppm			Can be absorbed through the skin.
XYLENE 1330-20-7	1 - 5	100 ppm	150 ppm		
TITANIUM DIOXIDE 13463-67-7	1 - 5	10 mg/m³			
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm	125 ppm		

If this section is blank, no information is available.

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	Liquid
pH:	Not determined.
Vapor pressure:	28 mmHG @ 68° F (20° C)
Vapor density (air = 1.0):	5.5
Boiling point:	230° F (110° C)
Solubility in water:	Insoluble.
Coefficient of water/oil distribution:	Not determined.
Density (lbs per US gallon):	8.06
Specific Gravity:	.97
Evaporation rate (butyl acetate = 1.0):	2

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	None known.
Incompatibility:	Strong oxidizers.
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide. Metal oxide fumes.
Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Mutagens:

Common Name CAS-No.	Approx. Weight %	California Prop 65 - Developmental Toxicity	California Prop 65 - Reproductive (Male)
TOLUENE 108-88-3	1 - 5	Listed: January 1, 1991 Developmental toxin.	

Teratogens:

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans. Contains TIO2 which is listed by IARC as a possible human carcinogen (Group 2B) based on animal data. Neither long term animal studies, nor human epidemiology studies of workers exposed to TIO2 provide an adequate basis to conclude TIO2 is carcinogenic. TIO2 is not classified as a carcinogen by NTP, U.S. OSHA, or the U.S. EPA.

Common Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
TITANIUM DIOXIDE 13463-67-7	1 - 5			2B Possible Carcinogen
ETHYLBENZENE 100-41-4	.1 - 1			Monograph 77, 2000

Common Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens	NTP Evidence of Carcinogenicity
TOLUENE 108-88-3	1 - 5			MALE RAT - NO EVIDENCE; FEMALE RAT - NO EVIDENCE; MALE MICE - NO EVIDENCE; FEMALE MICE - NO EVIDENCE.
ETHYLBENZENE 100-41-4	.1 - 1			male rat-clear evidence; female rat-some evidence; male mice-some evidence; female mice-some evidence

Common Name CAS-No.	Approx. Weight %	OSHA Select Carcinogens	OSHA Possible Select Carcinogens	ACGIH Carcinogens
ETHYLBENZENE 100-41-4	.1 - 1			Group A3 Confirmed animal carcinogen with unknown relevance to humans.

If this section is blank, no information is available.

12. ECOLOGICAL DATA

Not available at this time.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

14. TRANSPORTATION INFORMATION

Proper Shipping Name: PAINT
Hazard Class: 3
UN ID Number: UN1263
Packing Group: II

U.S. Highway & Rail Shipments
The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

International Air Transport Association:
Proper Shipping Name: Paint
Hazard Class: 3
UN ID Number: UN1263
Packing Group: II

International Maritime Organization:
Proper Shipping Name: PAINT
Hazard Class: 3
Non-Bulk UN ID Number: UN1263
Packing Group: II

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Common Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
TOLUENE 108-88-3	1 - 5		form R reporting required for 1.0% de minimis concentration	1000
XYLENE 1330-20-7	1 - 5		form R reporting required for 1.0% de minimis concentration	100
ETHYLBENZENE 100-41-4	.1 - 1		form R reporting required for 1.0% de minimis concentration	1000

SARA 311/312 Hazard Class:
Acute: Yes
Chronic: Yes
Flammability: Yes
Reactivity: No
Sudden Pressure: No

U.S. STATE REGULATIONS:

Pennsylvania Right To Know:

XYLENE	1330-20-7
TITANIUM DIOXIDE	13463-67-7
TOLUENE	108-88-3
NAPHTHA	64742-88-7
VM&P NAPHTHA	64742-89-8
ETHYL 3-ETHOXYPROPIONATE	763-69-9

Additional Non-Hazardous Materials

PROPRIETARY PIGMENT	Trade Secret
PROPRIETARY PIGMENT	Trade Secret
ALKYD RESIN	UNKNOWN

California Proposition 65:
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Rule 66 status of product Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

TSCA Inventory: All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List: All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2
Flammability:	3
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:
OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:
The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

The Valspar Corporation
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Material Identification

Product ID: **4C-4183, 4C-4191 FORMULA AAA0903**
Product Name: CAT BLACK PAINT - MEDIUM GLOSS
Product Use: Paint product.
Print date: 25/Feb/2008
Revision Date: 15/Nov/2007

Company Identification
The Valspar Corporation
1215 Nelson Blvd.
Rockford, IL 61104
Manufacturer's Phone: 1-877-724-0597

24-Hour Medical Emergency
Phone:1-303-893-1322, 1-800-458-5924 (TOLL FREE US & CANADA)

2. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Common Name CAS-No.	Approx. Weight %	Chemical name
NAPHTHA 64742-88-7	20 - 25	SOLVENT NAPHTHA, PETROLEUM, MEDIUM ALIPH
VM&P NAPHTHA 64742-89-8	20 - 25	SOLVENT NAPHTHA, PETROLEUM, LIGHT ALIPH
TALC 14807-96-6	5 - 10	TALC (MG3H2(SI03)4)
ZINC OXIDE 1314-13-2	1 - 5	Zinc oxide
EXEMPT MINERAL SPIRITS 8052-41-3	1 - 5	Stoddard solvent
MINERAL SPIRITS 64742-47-8	1 - 5	Petroleum distillates, hydrotreated light
PROPYLENE GLYCOL MONO METHYL ETHER 107-98-2	1 - 5	Propylene glycol monomethyl ether
NAPHTHA 64742-48-9	1 - 5	Naphtha, petroleum, hydrotreated heavy
ALIPHATIC HYDROCARBON 64742-82-1	1 - 5	NAPHTHA, PETROLEUM, HYDRODESULFURIZED HEAVY
CARBON BLACK PIGMENT 1333-86-4	1 - 5	CARBON BLACK
TOLUENE 108-88-3	1 - 5	Toluene
ETHYL 3-ETHOXYPROPIONATE 763-69-9	1 - 5	Ethyl 3-ethoxypropionate

If this section is blank there are no hazardous components per OSHA guidelines.

3. HAZARDS IDENTIFICATION

Primary Routes of Exposure:
Inhalation
Ingestion
Skin absorption

Emergency Overview:
This section not in use.

This product contains ingredients that may contribute to the following potential acute health effects:

Inhalation Effects:
Harmful if inhaled. May affect the brain, nervous system, or respiratory system, causing dizziness, headache, nausea or respiratory irritation. Causes respiratory tract irritation. Harmful if inhaled.

Eye Contact:
Corneal Injury/eye damage. Causes eye irritation.

Skin Contact:
Harmful if absorbed through the skin.

Acute Ingestion:
Harmful if swallowed.

Other Effects:
May cause central nervous system depression.

This product contains ingredients that may contribute to the following potential chronic health effects:

Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Prolonged or repeated contact with the skin may cause drying and reddening of the skin. Symptoms may include redness, burning, drying and cracking of the skin, and skin burns. May be harmful if swallowed. May cause liver damage. May cause kidney damage. Possible cancer hazard. Contains ingredients which may cause cancer based on animal data. Risk of cancer depends on duration and level of exposure. Possible birth defects hazard. Contains ingredients which may cause birth defects based on animal data.

See Section 11 for toxicological information about Mutagens, Teratogens and Carcinogens.

If this section is blank, no information is available.

4. FIRST AID MEASURES

Inhalation:
If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention. If affected by inhalation, move victim to fresh air. If symptoms persist, seek medical attention. Contact a physician immediately. If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth.

Eye Contact:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Skin Contact:
Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean contaminated shoes. In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. If irritation persists get medical attention. Remove contaminated clothing and launder before reuse.

Ingestion:
DO NOT INDUCE VOMITING. Give nothing by mouth. Get immediate medical attention. Aspiration hazard. If swallowed, contact medical personnel immediately to determine best course of action.

Medical conditions aggravated by exposure: Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	67° F (19° C) TCC/PM
Lower explosive limit:	1 %
Upper explosive limit:	6 %
Autoignition temperature:	Not available. ° F (° C)
Sensitivity to impact:	No.
Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:
Contaminated rags, wipes, saw dust, etc., may catch fire spontaneously. Store waste under water in closed metal containers until disposed of in compliance with applicable regulations. Contains oxidizable materials.

Extinguishing media:
Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:
Use water spray to cool nearby containers and structures exposed to fire. Firefighters should be equipped with self-contained breathing apparatus and turn out gear.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:
Ventilate area. Avoid breathing of vapors. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 5, "Unusual Fire and Explosion Hazards", for proper container and storage procedures. Remove sources of ignition. Remove with inert absorbent and non sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:
Keep away from heat, sparks, and flames. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:
Avoid contact with eyes. Wear chemical goggles if there is the possibility of contact or splashing in the eye.

Skin protection:
Appropriate chemical resistant gloves should be worn.To prevent skin contact wear protective clothing covering all exposed areas.

Respiratory protection:
If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation
Required when spraying or applying in confined area. Ventilation equipment should be explosion proof. Eliminate ignition sources.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Common Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
TALC 14807-96-6	5 - 10	Respirable. Listed. Total dust. Listed.		
ZINC OXIDE 1314-13-2	1 - 5	5 mg/m³ Fume. 5 mg/m³ Respirable fraction. 15 mg/m³ Total dust.		
EXEMPT MINERAL SPIRITS 8052-41-3	1 - 5	2900 mg/m³ 500 ppm		
CARBON BLACK PIGMENT 1333-86-4	1 - 5	3.5 mg/m³		
TOLUENE 108-88-3	1 - 5	200 ppm	300 ppm	

ACGIH Threshold Limit Value (TLV's)

Common Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
TALC 14807-96-6	5 - 10	2 mg/m³ Respirable fraction. The value is for particulate matter containing no asbestos and <1% crystalline silica.			
ZINC OXIDE 1314-13-2	1 - 5	2 mg/m³ Respirable fraction.	10 mg/m³ Respirable fraction.		
EXEMPT MINERAL SPIRITS 8052-41-3	1 - 5	100 ppm			
PROPYLENE GLYCOL MONO METHYL ETHER 107-98-2	1 - 5	100 ppm	150 ppm		
ALIPHATIC HYDROCARBON 64742-82-1	1 - 5	100 ppm			
CARBON BLACK PIGMENT 1333-86-4	1 - 5	3.5 mg/m³			
TOLUENE 108-88-3	1 - 5	50 ppm			Can be absorbed through the skin.

If this section is blank, no information is available.

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	Liquid
pH:	Not determined.
Vapor pressure:	28 mmHG @ 68° F (20° C)
Vapor density (air = 1.0):	5.5
Boiling point:	230° F (110° C)
Solubility in water:	Insoluble.
Coefficient of water/oil distribution:	Not determined.
Density (lbs per US gallon):	8.12
Specific Gravity:	.97
Evaporation rate (butyl acetate = 1.0):	2

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	None known.
Incompatibility:	Strong oxidizers.
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

Sensitivity to static discharge: Subject to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Mutagens:

Common Name CAS-No.	Approx. Weight %	California Prop 65 - Developmental Toxicity	California Prop 65 - Reproductive (Male)
TOLUENE 108-88-3	1 - 5	Listed: January 1, 1991 Developmental toxin.	

Teratogens:

Carcinogens:

Common Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
CARBON BLACK PIGMENT 1333-86-4	1 - 5			Monograph 65, 1996

Common Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens	NTP Evidence of Carcinogenicity
TALC 14807-96-6	5 - 10			YES
TOLUENE 108-88-3	1 - 5			MALE RAT - NO EVIDENCE; FEMALE RAT - NO EVIDENCE; MALE MICE - NO EVIDENCE; FEMALE MICE - NO EVIDENCE.

If this section is blank, no information is available.

12. ECOLOGICAL DATA

Not available at this time.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

Proper Shipping Name:	PAINT
Hazard Class:	3
UN ID Number:	UN1263
Packing Group:	II

U.S. Highway & Rail Shipments

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

International Air Transport Association:

Proper Shipping Name:	Paint
Hazard Class:	3
UN ID Number:	UN1263
Packing Group:	II

International Maritime Organization:

Proper Shipping Name:	PAINT
Hazard Class:	3
Non-Bulk UN ID Number:	UN1263
Packing Group:	II

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Common Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ZINC OXIDE 1314-13-2	1 - 5		YES	
TOLUENE 108-88-3	1 - 5		form R reporting required for 1.0% de minimis concentration	1000

SARA 311/312 Hazard Class:

Acute:	Yes
Chronic:	Yes
Flammability:	Yes
Reactivity:	No
Sudden Pressure:	No

U.S. STATE REGULATIONS:

Pennsylvania Right To Know:	
CARBON BLACK PIGMENT	1333-86-4
TALC	14807-96-6
PROPYLENE GLYCOL MONO METHYL ETHER	107-98-2
TOLUENE	108-88-3
ZINC OXIDE	1314-13-2
MINERAL SPIRITS	64742-47-8
NAPHTHA	64742-48-9
MINERAL SPIRITS CAS 64742-82-1 (FOR REG USE ONLY)	64742-82-1
NAPHTHA	64742-88-7
VM&P NAPHTHA	64742-89-8
ETHYL 3-ETHOXYPROPIONATE	763-69-9
EXEMPT MINERAL SPIRITS	8052-41-3

Additional Non-Hazardous Materials

SUPPLIER TRADE SECRET	Trade Secret
ALKYD RESIN	UNKNOWN
PROPRIETARY INERT	Trade Secret

California Proposition 65:
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Rule 66 status of product Not photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

TSCA Inventory: All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List: All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2
Flammability:	3
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:
OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:
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