



# Material Safety Data Sheet

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## Industrial Alkyd Enamel

## MSI-53/N2

CAS No.	— Section 2 — Hazardous Ingredients (percent by weight)	ACGIH	OSHA	Units	LD50	LC50	Vapor	53-1080	53-1800	53-2500	53-2910	53-4400	53-8485	53-8486	
		TLV <STEL>	PEL <STEL>		(Rat-Oral) mg/kg	(Rat) ppm/4hr.	Pressure mm	Equipment Orange	Safety Blue	Aluminum	Safety Yellow	Safety Green	New Caterpillar Yellow	Equipment Yellow	
64742-88-7	Mineral Spirits	100	100	ppm	NAv	NAv	2.0	45	1	44	41		45	43	%
64742-88-7	Mineral Spirits 140-Flash	100	100	ppm	NAv	NAv	0.5		44			41			
108-88-3	§ Toluene	50	100 <150>	ppm (skin)	5000	4000	22.0			3					
100-41-4	§ Ethylbenzene	100 <125>	100 <125>	ppm	3500	NAv	7.1	0.2	0.2		0.1	0.2	0.2	0.1	
1330-20-7	§ Xylene	100 <150>	100 <150>	ppm	4300	5000	5.9		1			1			
136-52-7	Cobalt 2-Ethylhexanoate	NAv	NAv		NAv	NAv						0.1			
13463-67-7	Titanium Dioxide	10	10[5]	mg/m3 as Dust [Resp. Fraction]	NAv	NAv		1	9		13	9	3	5	
	§ Cobalt Compound [% Cobalt]											0.1 [0.02]			
	Weight per Gallon (lbs.)							7.83	8.21	7.83	8.62	8.26	8.19	8.15	
	Solids by Weight (%)							52.8	52.8	52.1	57.0	54.8	53.1	55.1	
	Solids by Volume (%)							42.1	40.7	41.6	41.8	42.8	39.8	42.7	
	VOC (Volatile Organic Compounds) - lbs./gal.							3.69	3.87	3.74	3.71	3.73	3.84	3.65	
	Photochemically Reactive							No	No	No	No	No	No	No	
	Flash Point (°F)							101	100	108	101	100	101	101	
	HMIS (NFPA) Rating (health - flammability - reactivity)							2* - 2 - 0	2* - 2 - 0	2 - 2 - 1	2* - 2 - 0	2* - 2 - 0	2* - 2 - 0	2* - 2 - 0	

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

## Section 3 — Hazards Identification

**ROUTES OF EXPOSURE** - INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

**EFFECTS OF OVEREXPOSURE** - EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE** - Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE** - None generally recognized.

**CANCER INFORMATION** - For complete discussion of toxicology data refer to Section 11.

## Section 4 — First Aid Measures

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention IMMEDIATELY.

## Section 5 — Fire Fighting Measures

**FLASH POINT**

See TABLE

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0.9 7.0

**FLAMMABILITY CLASSIFICATION** - Combustible, Flash above 99 and below 200 °F

**EXTINGUISHING MEDIA** - Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS** - Closed containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES** - Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

## Section 6 — Accidental Release Measures

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED** - Remove all sources of ignition.

Ventilate the area. Remove with inert absorbent.

## Section 7 — Handling and Storage

**STORAGE CATEGORY** - DOL Storage Class II

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING** - Contents are COMBUSTIBLE. Keep away from heat and open flame.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

To minimize the possibility of spontaneous combustion when using 53-2500: control the accumulation of overspray; soak wiping rags and waste immediately after use in a water-filled, closed metal container; air dry filters outside, far from any combustible material and separated by bricks or other non-combustible spacers; dispose of all contaminated materials and waste properly. Consult OSHA 29 CFR 1910.107(b)(5) and NFPA 33, Chapter 8 (8-9) for the proper procedures.

## Section 8 — Exposure Controls/Personal Protection

**PRECAUTIONS TO BE TAKEN IN USE** - Use only with adequate ventilation. Avoid contact with skin and eyes. Avoid breathing vapor and spray mist. Wash hands after using.

These coatings may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), OSHA PEL 15 mg/m<sup>3</sup> (total dust), 5 mg/m<sup>3</sup> (respirable fraction).

**VENTILATION** - Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**RESPIRATORY PROTECTION** - If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

**PROTECTIVE GLOVES** - Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

**EYE PROTECTION** - Wear safety spectacles with unperforated sideshields.

**OTHER PRECAUTIONS** - Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

## Section 9 — Physical and Chemical Properties

**PRODUCT WEIGHT** See TABLE

**SPECIFIC GRAVITY** 0.94 - 1.13

**BOILING POINT** 222 - 416 °F

**VOLATILE VOLUME** 56 - 60 %

**EVAPORATION RATE** Slower than ether

**VAPOR DENSITY** Heavier than air

**MELTING POINT** Not Available

**SOLUBILITY IN WATER** Not Available

## Section 10 — Stability and Reactivity

**STABILITY** - Stable

**CONDITIONS TO AVOID** - None known.

**INCOMPATIBILITY** - Contamination of 53-2500 with Water, Acids, or Alkalis can cause evolution of hydrogen, which may result in dangerously increased pressures in closed containers.

**HAZARDOUS DECOMPOSITION PRODUCTS** - By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, possibility of Hydrogen Cyanide

**HAZARDOUS POLYMERIZATION** - Will not occur

## Section 11 — Toxicological Information

**CHRONIC Health Hazards** - Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

Cobalt and cobalt compounds are classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is inadequate evidence in humans for its carcinogenicity.

Prolonged overexposure to solvent ingredients in the following products may cause adverse effects to the following organ systems:

- 53-2500 liver, urinary, cardiovascular, reproductive
- 53-1800, 53-4400 liver, urinary, reproductive
- All other products listed on this sheet liver, urinary

Rats exposed to titanium dioxide dust at 250 mg/m<sup>3</sup> developed lung cancer, however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

## Section 12 — Ecological Information

No data available.

## Section 13 — Disposal Considerations

**WASTE DISPOSAL METHOD** - Waste from these products may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

## Section 14 — Transport Information

No data available.

## Section 15 — Regulatory Information

**CALIFORNIA PROPOSITION 65** - WARNING: These products contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**TSCA CERTIFICATION** - All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

## Section 16 — Other Information

These products have been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.