



# MATERIAL SAFETY DATA SHEET

prepared 07/30/01

ICI Paints North America  
925 Euclid Avenue Cleveland, Ohio 44115  
EMERGENCY TELEPHONE NO. (800) 545-2643

GLID-GUARD ALKYD IND ENAMEL WHITE & BASES

45XX W

## HAZARDS IDENTIFICATION

(ANSI Section 3)

**Primary route(s) of exposure :** Inhalation, skin contact, eye contact, ingestion.

### Effects of overexposure :

**Inhalation :** Irritation of respiratory tract. Prolonged inhalation may lead to loss of appetite, mucous membrane irritation, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, blurred vision, coughing, difficulty with speech, central nervous system depression, intoxication, confusion, anesthetic effect or narcosis, difficulty of breathing, allergic response, asthmatic reaction, tremors, severe lung irritation or damage, liver damage, kidney damage, pulmonary edema, convulsions, loss of consciousness, respiratory failure, asphyxiation, death. Possible sensitization to respiratory tract.

**Skin contact :** Irritation of skin. Prolonged or repeated contact can cause dermatitis, defatting, blistering. Skin contact may result in dermal absorption of component(s) of this product which may cause drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, blurred vision, central nervous system depression, confusion, tremors, convulsions.

**Eye contact :** Irritation of eyes. Prolonged or repeated contact can cause conjunctivitis, blurred vision, tearing of eyes, redness of eyes, severe eye irritation.

**Ingestion :** Ingestion may cause lung inflammation and damage due to aspiration of material into lungs, mouth and throat irritation, mucous membrane irritation, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, gastro-intestinal disturbances, abdominal pain, central nervous system depression, intoxication, difficulty of breathing, liver damage, kidney damage, pulmonary edema, convulsions, loss of consciousness, death.

**Medical conditions aggravated by exposure :** Eye, skin, respiratory disorders kidney disorders

## FIRST-AID MEASURES

(ANSI Section 4)

**Inhalation :** Remove to fresh air. Restore and support continued breathing. Get emergency medical attention. Have trained person give oxygen if necessary. Get medical help for any breathing difficulty. Remove to fresh air if inhalation causes eye watering, headaches, dizziness, or other discomfort.

**Skin contact :** Flush from skin with water. Then wash thoroughly with soap and water. Remove contaminated clothing. Wash contaminated clothing before re-use.

**Eye contact :** Flush immediately with large amounts of water, especially under lids for at least 15 minutes. If irritation or other effects persist, obtain medical treatment.

**Ingestion :** If swallowed, obtain medical treatment immediately.

## FIRE-FIGHTING MEASURES

(ANSI Section 5)

**Fire extinguishing media :** Dry chemical or foam water fog. Carbon dioxide. Closed containers may explode when exposed to extreme heat or fire. Vapors are heavier than air and may travel long distances to a source of ignition and flash back. Vapors can form explosive mixtures in air at elevated temperatures. Closed containers may burst if exposed to extreme heat or fire. May decompose under fire conditions emitting irritant and/or toxic gases.

**Fire fighting procedures :** Water may be used to cool and protect exposed containers. Firefighters should use full protective clothing, eye protection, and self-contained breathing apparatus. Self-contained breathing apparatus recommended.

**Hazardous decomposition or combustion products :** Carbon monoxide, carbon dioxide, oxides of nitrogen, acrid fumes, phosphorous, ammonia, toxic gases.

## ACCIDENTAL RELEASE MEASURES

(ANSI Section 6)

**Steps to be taken in case material is released or spilled :** Comply with all applicable health and environmental regulations. Eliminate all sources of ignition. Ventilate area. Ventilate area with explosion-proof equipment. Spills may be collected with absorbent materials. Evacuate all unnecessary personnel. Place collected material in proper container. Complete personal protective equipment must be used during cleanup. Large spills - shut off leak if safe to do so. Dike and contain spill. Pump to storage or salvage vessels. Use absorbent to pick up excess residue. Keep salvageable material and rinse water out of sewers and water courses. Small spills - use absorbent to pick up residue and dispose of properly.

## HANDLING AND STORAGE

(ANSI Section 7)

**Handling and storage :** Store below 100f (38c). Keep away from heat, sparks and open flame.

**Other precautions :** Use only with adequate ventilation. Do not take internally. Keep out of reach of children. Avoid contact with skin and eyes, and breathing of vapors. Wash hands thoroughly after handling, especially before eating or smoking. Keep containers tightly closed and upright when not in use. Avoid conditions which result in formation of inhalable particles such as spraying or abrading (sanding) painted surfaces. If such conditions cannot be avoided, use appropriate respiratory protection as directed under exposure controls/personal protection. Empty containers may contain hazardous residues. Ground equipment when transferring to prevent accumulation of static charge.

## EXPOSURE CONTROLS/PERSONAL PROTECTION

(ANSI Section 8)

**Respiratory protection :** Control environmental concentrations below applicable exposure standards when using this material. When respiratory protection is determined to be necessary, use a NIOSH/MSHA (Canadian z94.4) Approved elastomeric sealing- surface facepiece respirator outfitted with organic vapor cartridges and paint spray (dust/mist) prefilters. Determine the proper level of protection by conducting appropriate air monitoring. Consult 29CFR1910.134 For selection of respirators (Canadian z94.4).

**Ventilation :** Provide dilution ventilation or local exhaust to prevent build-up of vapors. Use explosion-proof equipment.

**Personal protective equipment :** Eye wash, safety shower, safety glasses or goggles. Impervious gloves, impervious clothing, face shield.

## STABILITY AND REACTIVITY

(ANSI Section 10)

**Under normal conditions :** Stable see section 5 fire fighting measures

**Materials to avoid :** Oxidizers, acids, bases, amines, nitric acid. Chlorinated rubber

**Conditions to avoid :** Elevated temperatures, contact with oxidizing agent, sparks, open flame, ignition sources.

**Hazardous polymerization :** Will not occur

## TOXICOLOGICAL INFORMATION

(ANSI Section 11)

**Supplemental health information :** Contains a chemical that is moderately toxic by inhalation. Contains a chemical that is readily absorbed through skin. 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. Other effects of overexposure may include toxicity to liver, kidney, central nervous system.

The information contained herein is based on data available at the time of preparation of this data sheet which ICI Paints believes to be reliable. However, no warranty is expressed or implied regarding the accuracy of this data. ICI Paints shall not be responsible for the use of this information, or of any product, method or apparatus mentioned and you must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and the health and safety of your employees and the users of this material. Complies with OSHA hazard communication standard 29CFR1910.1200.

**Carcinogenicity :** Inhalation of non-asbestiform cosmetic grade talc for 2 years at 6 and 18 mg/m<sup>3</sup> produced clear evidence of carcinogenicity in female rats (lung and adrenal tumors) and some evidence of carcinogenicity in male rats (adrenal tumors). No evidence of carcinogenicity was demonstrated in male and female mice exposed under the same conditions. Microscopic examination of the lungs of rats and mice exposed to talc revealed additional exposure related effects primarily associated with the inflammatory response. Contains crystalline silica which is considered a hazard by inhalation. IARC has classified crystalline silica as carcinogenic to humans (group 1). Crystalline silica is also a known cause of silicosis, a noncancerous lung disease. The national toxicology program (NTP) has classified crystalline silica as a known human carcinogen. The international agency for research on cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (group 2b) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. In a 2 year inhalation study conducted by the national toxicology program (NTP), ethylbenzene vapor at 750 ppm produced kidney and testicular tumors in rats and lung and liver tumors in mice. Genetic toxicity studies showed no genotoxic effects. The relevance of these results to humans is not known. The international agency for research on cancer (IARC) has classified cobalt and certain cobalt compounds as possibly carcinogenic to humans (group 2b). Injection of metallic cobalt, cobalt alloys, and certain cobalt compounds has resulted in the development of localized tumors in laboratory animals.

**Reproductive effects :** High exposures to xylene in some animal studies, often at maternally toxic levels, have affected embryo/fetal development. The significance of this finding to humans is not known.

**Mutagenicity :** No mutagenic effects are anticipated

**Teratogenicity :** No teratogenic effects are anticipated

## ECOLOGICAL INFORMATION

(ANSI Section 12)

No ecological testing has been done by ICI paints on this product as a whole.

## DISPOSAL CONSIDERATIONS

(ANSI Section 13)

**Waste disposal :** Dispose in accordance with all applicable regulations. Avoid discharge to natural waters.

## REGULATORY INFORMATION

(ANSI Section 15)

As of the date of this MSDS, all of the components in this product are listed (or are otherwise exempt from listing) on the TSCA inventory. This product has been classified in accordance with the hazard criteria of the CPR (controlled products regulations) and the MSDS contains all the information required by the CPR.

## Physical Data

(ANSI Sections 1, 9, and 14)

Product Code	Description	Wt. / Gal.	VOC gr. / ltr.	% Volatile by Volume	Flash Point	Boiling Range	HMIS	DOT, proper shipping name
4503	glid-guard alkyd industrial enamel - clear tint base	8.23	438.73	55.81	105 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4525	glid-guard alkyd industrial enamel - white-high hiding	9.90	394.04	50.30	105 f	180-415	*320	paint, combustible liquid, UN 1263, PGIII
4550	glid-guard alkyd industrial enamel - white	9.34	430.89	54.75	105 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4575	glid-guard alkyd industrial enamel - pastel tint base	8.81	436.30	55.43	105 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4580	glid-guard alkyd industrial enamel - deep tint base	8.16	412.42	52.61	105 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4587	glid-guard alkyd industrial enamel - intermediate tint base	8.40	395.57	50.63	105 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII

## Ingredients

Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	4503	4525	4550	4575	4580	4587
benzene, ethyl-	ethylbenzene	100-41-4	.1-1.0		.1-1.0	.1-1.0	.1-1.0	.1-1.0
limestone	limestone	1317-65-3	10-20					
benzene, dimethyl-	xylene	1330-20-7	1-5	.1-1.0	1-5	1-5	1-5	1-5
titanium oxide	titanium dioxide	13463-67-7		20-30	20-30	10-20	1-5	10-20
hexanoic acid, 2-ethyl-, cobalt(2+) salt	cobalt alkanoate	136-52-7	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0
talc	talc	14807-96-6					5-10	
quartz	quartz	14808-60-7	.1-1.0					
aluminum hydroxide	aluminum hydroxide	21645-51-2		1-5				
ethanol	ethyl alcohol	64-17-5		.1-1.0				
naphtha (petroleum), heavy alkylate	heavy solvent naphtha	64741-65-7	5-10		1-5	5-10	10-20	10-20
distillates (petroleum), hydrotreated light	hydrotreated light distillate	64742-47-8						1-5
solvent naphtha (petroleum), medium aliphatic	medium aliphatic solvent naphtha	64742-88-7	10-20	5-10	10-20	10-20	10-20	10-20
solvent naphtha (petroleum), light aromatic	light aromatic solvent naphtha	64742-95-6		1-5				1-5
fatty acids, tall oil, polymers with glycerol, pentaerythritol and phthalic anhydride	alkyd resin	66070-62-0		30-40				
soybean oil, polymer with pentaerythritol, tdi and tung oil	alkyd resin	67989-28-0						5-10
quaternary ammonium compounds, bis(hydrogenated tallow alkyl)di-methyl, salts with bentonite	dispersant, organoclay	68953-58-2						1-5
benzene	benzene	71-43-2		.01-.1				
quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, chlorides, compounds with hectorite	rheological additive	71011-27-3		1-5				
silica	amorphous silica	7631-86-9		1-5				
lecithins	lecithin	8002-43-5				1-5		1-5
stoddard solvent	mineral spirits	8052-41-3	20-30	10-20	10-20	20-30	5-10	
benzene,1,2,4-trimethyl-	pseudocumene	95-63-6	.1-1.0	.1-1.0			.1-1.0	.1-1.0

**Ingredients (Continued)**

**Product Codes with % by Weight (ANSI Section 2)**

Chemical Name	Common Name	CAS. No.	4503	4525	4550	4575	4580	4587
alkyd resin	alkyd resin	Sup. Conf.	20-30		20-30	20-30	5-10	
castor oil derivative	rheological additive	Sup. Conf.	1-5		1-5	1-5		
long oil alkyd resin	long oil alkyd resin	Sup. Conf.	10-20		10-20	10-20	30-40	30-40

**Chemical Hazard Data**

**(ANSI Sections 2, 8, 11, and 15)**

Common Name	CAS. No.	ACGIH-TLV				OSHA-PEL				S.R. Std.	S2	S3	CC	H	M	N	I	O
		8-Hour TWA	STEL	C	S	8-Hour TWA	STEL	C	S									
ethylbenzene	100-41-4	100 ppm	125 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	y	n
limestone	1317-65-3	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
xylene	1330-20-7	100 ppm	150 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
titanium dioxide	13463-67-7	10 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
cobalt alkanoate	136-52-7	.02 mg/m3	not est.	not est.	not est.	.05 mg/m3	not est.	not est.	not est.	not est.	n	y	n	y	n	n	n	n
talc	14807-96-6	2 mg/m3	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
quartz	14808-60-7	.05 mg/m3	not est.	not est.	not est.	0.1 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	y	y
aluminum hydroxide	21645-51-2	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
heavy solvent naphtha	64741-65-7	100 ppm	not est.	not est.	not est.	500 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
hydrotreated light distillate	64742-47-8	100 ppm	not est.	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
medium aliphatic solvent naphtha	64742-88-7	not est.	not est.	not est.	not est.	500 x ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
light aromatic solvent naphtha	64742-95-6	not est.	not est.	not est.	not est.	500x ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
dispersant, organoclay	68953-58-2	10 mg/m3	not est.	not est.	not est.	15 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
benzene	71-43-2	.5 ppm	2.5 ppm	not est.	not est.	1 ppm	5 ppm	not est.	not est.	not est.	n	y	y	y	n	y	y	y
rheological additive	71011-27-3	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
amorphous silica	7631-86-9	10 mg/m3	not est.	not est.	not est.	6 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
lecithin	8002-43-5	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
mineral spirits	8052-41-3	100 ppm	not est.	not est.	not est.	500 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
rheological additive	Sup. Conf.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n

**Footnotes:**

C=Ceiling - Concentration that should not be exceeded, even instantaneously.

S=Skin - Additional exposure, over and above airborne exposure, may result from skin absorption.

n/a=not applicable  
not est=not established  
CC=CERCLA Chemical

ppm=parts per million  
mg/m3=milligrams per cubic meter  
Sup Conf=Supplier Confidential

S2=Sara Section 302 EHS  
S3=Sara Section 313 Chemical  
S.R. Std.=Supplier Recommended Standard

H=Hazardous Air Pollutant, M=Marine Pollutant  
P=Pollutant, S=Severe Pollutant  
Carcinogenicity Listed By:  
N=NTP, I=IARC, O=OSHA, y=yes, n=no



# MATERIAL SAFETY DATA SHEET

prepared 07/30/01

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925 Euclid Avenue Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO. (800) 545-2643

45XX C

## HAZARDS IDENTIFICATION

(ANSI Section 3)

**Primary route(s) of exposure :** Inhalation, skin contact, eye contact, ingestion.

**Effects of overexposure :**

**Inhalation :** Irritation of respiratory tract. Prolonged inhalation may lead to loss of appetite, mucous membrane irritation, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, blurred vision, coughing, difficulty with speech, central nervous system depression, intoxication, anesthetic effect or narcosis, difficulty of breathing, allergic response, asthmatic reaction, tremors, severe lung irritation or damage, liver damage, kidney damage, pulmonary edema, convulsions, pneumoconiosis, loss of consciousness, respiratory failure, asphyxiation, death. Possible sensitization to respiratory tract.

**Skin contact :** Irritation of skin. Prolonged or repeated contact can cause dermatitis, defatting, blistering. Skin contact may result in dermal absorption of component(s) of this product which may cause central nervous system depression.

**Eye contact :** Irritation of eyes. Prolonged or repeated contact can cause conjunctivitis, blurred vision, tearing of eyes, redness of eyes, severe eye irritation.

**Ingestion :** Ingestion may cause lung inflammation and damage due to aspiration of material into lungs, mouth and throat irritation, mucous membrane irritation, fatigue, dizziness and/or lightheadedness, nausea, vomiting, diarrhea, gastro-intestinal disturbances, abdominal pain, central nervous system depression, intoxication, difficulty of breathing, liver damage, kidney damage, pulmonary edema, convulsions, loss of consciousness.

**Medical conditions aggravated by exposure :** Eye, skin, respiratory disorders lung disorders asthma-like conditions

## FIRST-AID MEASURES

(ANSI Section 4)

**Inhalation :** Remove to fresh air. Restore and support continued breathing. Get emergency medical attention. Have trained person give oxygen if necessary. Get medical help for any breathing difficulty. Remove to fresh air if inhalation causes eye watering, headaches, dizziness, or other discomfort. Get medical attention if discomfort or irritation persists.

**Skin contact :** Flush from skin with water. Then wash thoroughly with soap and water. Remove contaminated clothing. Wash contaminated clothing before re-use. If irritation occurs, consult a physician.

**Eye contact :** Flush immediately with large amounts of water, especially under lids for at least 15 minutes. If irritation or other effects persist, obtain medical treatment.

**Ingestion :** If swallowed, obtain medical treatment immediately.

## FIRE-FIGHTING MEASURES

(ANSI Section 5)

**Fire extinguishing media :** Dry chemical or foam water fog. Carbon dioxide. Closed containers may explode when exposed to extreme heat or fire. Vapors are heavier than air and may travel long distances to a source of ignition and flash back. Vapors can form explosive mixtures in air at elevated temperatures. Closed containers may burst if exposed to extreme heat or fire. Dust explosion hazard. May decompose under fire conditions emitting irritant and/or toxic gases.

**Fire fighting procedures :** Water may be used to cool and protect exposed containers. Firefighters should use full protective clothing, eye protection, and self-contained breathing apparatus. Self-contained breathing apparatus recommended.

**Hazardous decomposition or combustion products :** Carbon monoxide, carbon dioxide, oxides of nitrogen, acrid fumes, ammonia, toxic gases, nitrogen, monoazo compounds, aromatic amines, 3,3' dichlorobenzidine. Acid halides.

## ACCIDENTAL RELEASE MEASURES

(ANSI Section 6)

**Steps to be taken in case material is released or spilled :** Comply with all applicable health and environmental regulations. Eliminate all sources of ignition. Ventilate area. Spills may be collected with absorbent materials. Evacuate all unnecessary personnel. Place collected material in proper container. Complete personal protective equipment must be used during cleanup. Large spills - shut off leak if safe to do so. Dike and contain spill. Pump to storage or salvage vessels. Use absorbent to pick up excess residue. Keep salvageable material and rinse water out of sewers and water courses. Small spills - use absorbent to pick up residue and dispose of properly.

## HANDLING AND STORAGE

(ANSI Section 7)

**Handling and storage :** Store below 100f (38c). Keep away from heat, sparks and open flame.

**Other precautions :** Use only with adequate ventilation. Do not take internally. Keep out of reach of children. Avoid contact with skin and eyes, and breathing of vapors. Wash hands thoroughly after handling, especially before eating or smoking. Keep containers tightly closed and upright when not in use. Avoid conditions which result in formation of inhalable particles such as spraying or abrading (sanding) painted surfaces. If such conditions cannot be avoided, use appropriate respiratory protection as directed under exposure controls/personal protection. Empty containers may contain hazardous residues. Ground equipment when transferring to prevent accumulation of static charge.

## EXPOSURE CONTROLS/PERSONAL PROTECTION

(ANSI Section 8)

**Respiratory protection :** Where respiratory protection is required, use only NIOSH/MSHA approved respirators in accordance with OSHA standard 29 CFR 1910.134.

**Ventilation :** Provide dilution ventilation or local exhaust to prevent build-up of vapors. Use explosion-proof equipment.

**Personal protective equipment :** Eye wash, safety shower, safety glasses or goggles. Impervious gloves, impervious clothing, apron.

## STABILITY AND REACTIVITY

(ANSI Section 10)

**Under normal conditions :** Stable see section 5 fire fighting measures

**Materials to avoid :** Oxidizers, acids, bases, amines, hypochlorites, peroxides, nitric acid. Nitrates. Hydrazine performic acid bromine pentafluoride

**Conditions to avoid :** Elevated temperatures, contact with oxidizing agent, sparks, open flame, ignition sources.

**Hazardous polymerization :** Will not occur

## TOXICOLOGICAL INFORMATION

(ANSI Section 11)

**Supplemental health information :** Contains a chemical that is moderately toxic by inhalation.

Contains a chemical that is readily absorbed through skin. 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. Other effects of overexposure may include toxicity to liver, kidney, lungs, central nervous system.

**Carcinogenicity :** Decomposition of diarylide pigments at temperatures above 392f (200c) can produce trace amounts of monazo dyes, which can then decompose to produce aromatic amines. As the temperature increases into the 464-572f (240-300c), trace quantities of 3,3'-dichlorobenzidine (3,3'-dcb) can be detected. The national toxicity program (NTP) has classified 3,3'-dcb as a known human carcinogen. The international agency for research on cancer (IARC) has classified 3,3'-dcb as a possible human carcinogen (group 2b: sufficient animal data, inadequate human data). In 2-year feed studies of c.I. Pigment red 3, there was some evidence of carcinogenic activity in male rats (adrenal gland - benign pheochromocytomas) and female rats (hepatocellular adenomas). There was also some evidence of carcinogenic activity in male mice (adenomas of renal cortex and thyroid gland), but no evidence in female mice. The international agency for research on cancer (IARC) has classified carbon black as possibly carcinogenic to humans (group 2b) based on sufficient evidence in animals and inadequate evidence in humans. The international agency for research on cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (group 2b) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. In a 2 year inhalation study conducted by the national toxicology program (NTP), ethylbenzene vapor at 750 ppm produced kidney and testicular tumors in rats and lung and liver tumors in mice. Genetic toxicity studies showed no genotoxic effects. The relevance of these results to humans is not known. The international agency for research on cancer (IARC) has classified cobalt and certain cobalt compounds as possibly carcinogenic to humans (group 2b). Injection of metallic cobalt, cobalt alloys, and certain cobalt compounds has resulted in the development of localized tumors in laboratory animals.

**Reproductive effects :** High exposures to xylene in some animal studies, often at maternally toxic levels, have affected embryo/fetal development. The significance of this finding to humans is not known.

**Mutagenicity :** No mutagenic effects are anticipated

**Teratogenicity :** No teratogenic effects are anticipated

## ECOLOGICAL INFORMATION

(ANSI Section 12)

No ecological testing has been done by ICI paints on this product as a whole.

## DISPOSAL CONSIDERATIONS

(ANSI Section 13)

**Waste disposal :** Dispose in accordance with all applicable regulations. Avoid discharge to natural waters.

## REGULATORY INFORMATION

(ANSI Section 15)

As of the date of this MSDS, all of the components in this product are listed (or are otherwise exempt from listing) on the TSCA inventory. This product has been classified in accordance with the hazard criteria of the CPR (controlled products regulations) and the MSDS contains all the information required by the CPR.

## Physical Data

(ANSI Sections 1, 9, and 14)

Product Code	Description	Wt. / Gal.	VOC gr. / ltr.	% Volatile by Volume	Flash Point	Boiling Range	HMIS	DOT, proper shipping name
4510	glid-guard alkyd industrial enamel - safety orange	8.03	447.63	56.83	102 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4520	glid-guard alkyd industrial enamel - safety red	7.80	435.86	55.41	105 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4537	glid-guard alkyd industrial enamel - warm brown	8.24	447.12	56.75	100 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4540	glid-guard alkyd industrial enamel - safety yellow	8.31	432.02	55.14	106 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4546	glid-guard alkyd industrial enamel - architectural brown	8.31	448.10	57.02	105 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4551	glid-guard alkyd industrial enamel - black	7.73	421.23	53.66	102 f	277-415	*220	paint, combustible liquid, UN 1263, PGIII
4554	glid-guard alkyd industrial enamel - medium green	7.83	448.43	56.85	109 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4560	glid-guard alkyd industrial enamel - medium yellow	8.26	437.66	55.68	106 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4562	glid-guard alkyd industrial enamel - machine gray	8.15	449.23	56.91	106 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4564	glid-guard alkyd industrial enamel - imperial blue	7.81	420.51	53.57	104 f	277-415	*320	paint, combustible liquid, UN 1263, PGIII
4573	glid-guard alkyd industrial enamel - ezc green	7.91	483.39	61.60	104 f	281-383	*120	paint, combustible liquid, UN 1263, PGIII

## Ingredients

Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	4510	4520	4537	4540	4546	4551	4554	4560	4562	4564	4573
benzene, ethyl-	ethylbenzene	100-41-4	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	
1,2-benzenedicarboxylic acid, bis(2-ethylhexyl) ester	di (2-ethylhexyl) phthalate	117-81-7								.01-.1			
quaternary ammonium compounds, benzylbis (hydrogenated tallow alkyl)methyl, benzoate lauryl sulfate, salts with bentonite	rheological additive	121888-66-2						1-5					
limestone	limestone	1317-65-3					5-10						
benzene, dimethyl-	xylene	1330-20-7	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	
iron oxide	iron oxide	1332-37-2			1-5		1-5						
kaolin	clay	1332-58-7				1-5				1-5			
carbon black	carbon black	1333-86-4			.1-1.0		1-5	1-5			.1-1.0	.1-1.0	.1-1.0
titanium oxide	titanium dioxide	13463-67-7	1-5			5-10	1-5	1-5	1-5	5-10	5-10	1-5	5-10
butanamide, 2-((4-chloro-2-nitrophenyl)azo)- n-(2-methoxyphenyl)-3-oxo-	c.i. pigment yellow 73	13515-40-7	5-10			5-10			1-5	1-5			
hexanoic acid, 2-ethyl-, cobalt(2+) salt	cobalt alkanoate	136-52-7	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	

**Ingredients (Continued)**

**Product Codes with % by Weight (ANSI Section 2)**

Chemical Name	Common Name	CAS. No.	4510	4520	4537	4540	4546	4551	4554	4560	4562	4564	4573
copper, (29h, 31h-phthalocyaninato(2-n)29,n30,n31, n32)-, (sp-4-1)-	phthalocyanine blue pigment	147-14-8										1-5	
2-naphthalenol, 1-((4-methyl-2-nitrophenyl)azo)-	pigment red 3	2425-85-6		5-10									
2-naphthalenol, 1-((2,4-dinitrophenyl)azo)-	dinitroaniline orange	3468-63-1	1-5										
c.i. pigment yellow 42	yellow iron oxide	51274-00-1			5-10	1-5	1-5						1-5
butanamide, 2,2'-((3,3'-dichloro(1,1'-biphenyl)- 4,4'-diyl)bis(azo))bis(n-(4-chloro-2,5-dimethoxyphenyl)-3-oxo-	diazo yellow	5567-15-7								1-5			
naphtha (petroleum), heavy alkylate	heavy solvent naphtha	64741-65-7	1-5	5-10	5-10	5-10	1-5	10-20	1-5	5-10	1-5	10-20	30-40
solvent naphtha (petroleum), medium aliphatic	medium aliphatic solvent naphtha	64742-88-7	10-20	10-20	10-20	10-20	10-20	10-20	5-10	10-20	5-10	10-20	10-20
solvent naphtha (petroleum), light aromatic	light aromatic solvent naphtha	64742-95-6											1-5
fatty acids, tall-oil, polymers with ethylene glycol, glycerol, isophthalic acid, pentaerythritol and propylene glycol	alkyd resin	68333-62-0											30-40
quaternary ammonium compounds, bis(hydrogenated tallow alkyl)di=methyl, salts with bentonite	dispersant, organoclay	68953-58-2		1-5	1-5	1-5	1-5		1-5	1-5			1-5
stoddard solvent	mineral spirits	8052-41-3	20-30	20-30	20-30	10-20	20-30	10-20	30-40	10-20	30-40	10-20	
benzene, 1,2,4-trimethyl-alkyd resin	pseudocumene	95-63-6		.1-1.0		.1-1.0		.1-1.0	.1-1.0	.1-1.0		.1-1.0	.1-1.0
long oil alkyd resin	alkyd resin	Sup. Conf.	20-30	20-30	20-30	10-20	20-30	10-20	30-40	10-20	30-40	10-20	
long oil alkyd resin	long oil alkyd resin	Sup. Conf.	10-20	20-30	10-20	20-30	10-20	30-40	10-20	20-30	5-10	30-40	

**Chemical Hazard Data**

**(ANSI Sections 2, 8, 11, and 15)**

Common Name	CAS. No.	ACGIH-TLV				OSHA-PEL				S.R. Std.	S2	S3	CC	H	M	N	I	O
		8-Hour TWA	STEL	C	S	8-Hour TWA	STEL	C	S									
ethylbenzene	100-41-4	100 ppm	125 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	y	n
di (2-ethylhexyl) phthalate	117-81-7	5 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	y	y	y	n	y	y	n
rheological additive	121888-66-2	10 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
limestone	1317-65-3	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
xylene	1330-20-7	100 ppm	150 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
iron oxide	1332-37-2	5 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
clay	1332-58-7	2 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
carbon black	1333-86-4	3.5 mg/m3	not est.	not est.	not est.	3.5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	y	n
titanium dioxide	13463-67-7	10 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
c.i. pigment yellow 73	13515-40-7	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
cobalt alkanolate	136-52-7	.02 mg/m3	not est.	not est.	not est.	.05 mg/m3	not est.	not est.	not est.	not est.	n	y	n	y	n	n	n	n
phthalocyanine blue pigment	147-14-8	10 mg/m3	not est.	not est.	not est.	.05 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
pigment red 3	2425-85-6	10 mg/m3	not est.	not est.	not est.	15 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
dinitroaniline orange	3468-63-1	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
yellow iron oxide	51274-00-1	5 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
diazo yellow	5567-15-7	10 mg/m3	not est.	not est.	not est.	15 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
heavy solvent naphtha	64741-65-7	100 ppm	not est.	not est.	not est.	500 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
medium aliphatic solvent naphtha	64742-88-7	not est.	not est.	not est.	not est.	500 x ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
light aromatic solvent naphtha	64742-95-6	not est.	not est.	not est.	not est.	500x ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
dispersant, organoclay	68953-58-2	10 mg/m3	not est.	not est.	not est.	15 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
mineral spirits	8052-41-3	100 ppm	not est.	not est.	not est.	500 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n

**Footnotes:**  
C=Ceiling - Concentration that should not be exceeded, even instantaneously.

S=Skin - Additional exposure, over and above airborne exposure, may result from skin absorption.

n/a=not applicable  
not est=not established  
CC=CERCLA Chemical

ppm=parts per million  
mg/m3=milligrams per cubic meter  
Sup Conf=Supplier Confidential

S2=Sara Section 302 EHS  
S3=Sara Section 313 Chemical  
S.R.Std.=Supplier Recommended Standard

H=Hazardous Air Pollutant, M=Marine Pollutant  
P=Pollutant, S=Severe Pollutant  
Carcinogenicity Listed By:  
N=NTP, I=IARC, O=OSHA, y=yes, n=no