

## 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, 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, allergic response. Skin contact may result in dermal absorption of component(s) of this product which may cause blurred vision, 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, headache, uncoordination, nausea, vomiting, diarrhea, gastro-intestinal disturbances, abdominal pain, central nervous system depression, difficulty of breathing, liver damage, kidney damage, pulmonary edema, convulsions, loss of consciousness.

**Medical conditions aggravated by exposure :** Eye, skin, respiratory 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 :** Wash thoroughly with soap and water. If any product remains, gently rub petroleum jelly, vegetable or mineral/baby oil onto skin. Repeated applications may be needed. 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. 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.

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

## 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. 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 facemask 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.

## STABILITY AND REACTIVITY (ANSI Section 10)

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

**Materials to avoid :** Oxidizers, acids, bases, amines, ammonium salts, nitric acid.

**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 may be 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.

**Carcinogenicity :** Inhalation of non-asbestiform cosmetic grade talc for 2 years at 6 and 18 mg/m3 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. Stoddard solvent iic has been shown to cause kidney tumors in male rats in a national toxicology program (NTP) study. These tumors were associated with a specific protein, alpha-2u-microglobulin. Because humans do not produce this protein stoddard solvent iic has not been classified as a human carcinogen. 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. In a 2-year inhalation bioassay conducted by the national toxicology program (NTP), ethylene glycol butyl ether (egbe) caused an increased incidence of liver tumors in male mice and forestomach tumors in female mice exposed to 250 ppm, the highest concentration tested with mice. In rats, an increased incidence of tumors affecting the adrenal gland was seen in females exposed at 125 ppm only. This finding was not statistically significant. No increased incidence of any tumor type was seen in male rats exposed to the highest test concentration of 125ppm. The relevance of these findings to humans is unclear. In a lifetime inhalation study, exposure to 250 mg/m3 titanium dioxide resulted in the development of lung tumors in rats. These tumors occurred only at dust levels that overwhelmed the animals' lung clearance mechanisms and were different from common human lung tumors in both type and location. The relevance of these findings to humans is unknown but questionable. The international agency for research on cancer (IARC) has classified titanium dioxide as possibly carcinogenic to humans (group 2b) based on inadequate evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals. Contains methyl ethyl ketoxime (meko). In a lifetime, inhalation study, liver carcinomas were observed in rodents exposed to meko. The relevance to humans is unknown.

**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
4308-0100	devguard 4308 alkyd industrial gloss enamel - white	9.34	430.44	54.64	105 f	277-415	320	UN1263, paint, combustible liquid, PGIII
4308-0200	devguard 4308 alkyd industrial gloss enamel - pastel tint base	8.81	435.71	55.30	105 f	277-415	320	UN1263, paint, combustible liquid, PGIII
4308-0300	devguard 4308 alkyd industrial gloss enamel - intermediate tint base	8.44	392.29	49.92	105 f	276-415	320	UN1263, paint, combustible liquid, PGIII
4308-0400	devguard 4308 alkyd industrial gloss enamel - deep tint base	8.19	414.78	52.66	105 f	277-415	*320	UN1263, paint, combustible liquid, PGIII
4308-0900	devguard 4308 alkyd industrial gloss enamel - neutral tint base	8.24	441.36	56.00	105 f	277-415	*320	UN1263, paint, combustible liquid, PGIII
4308-1000	devguard 4308 alkyd industrial gloss enamel - white-high hiding	9.96	376.60	47.84	105 f	277-415	320	UN1263, paint, combustible liquid, PGIII

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

Chemical Name	Common Name	CAS. No.	4308-0100	4308-0200	4308-0300	4308-0400	4308-0900	4308-1000
benzene, ethyl-	ethylbenzene	100-41-4	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0	.1-1.0
ethanol, 2-butoxy-	2-butoxyethanol	111-76-2					.1-1.0	
limestone	limestone	1317-65-3					10-20	
benzene, dimethyl-	xylene	1330-20-7	1-5	1-5	1-5	1-5	1-5	1-5
titanium oxide	titanium dioxide	13463-67-7	20-30	10-20	10-20	1-5		20-30
talc	talc	14807-96-6				5-10		
quartz	quartz	14808-60-7					.1-1.0	
aluminum hydroxide	aluminum hydroxide	21645-51-2						1-5
neodecanoic acid, cobalt salt	cobalt neodecanoate	27253-31-2				.1-1.0		
naphtha (petroleum), heavy alkylate	heavy solvent naphtha	64741-65-7	1-5	5-10	10-20	10-20	5-10	10-20

Ingredients (Continued)

Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	4308-0100	4308-0200	4308-0300	4308-0400	4308-0900	4308-1000
solvent naphtha (petroleum), medium aliphatic	medium aliphatic solvent naphtha	64742-88-7	10-20	10-20	10-20	10-20	10-20	10-20
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			1-5
fatty acids, c9-c13-neo-, cobalt salts	fatty acids, c9-c13-neo-, cobalt salts	68955-83-9				.1-1.0		
silica	amorphous silica	7631-86-9						1-5
lecithins	lecithin	8002-43-5		1-5	1-5			
stoddard solvent	mineral spirits	8052-41-3	10-20	20-30	1-5	5-10	20-30	
benzene,1,2,4-trimethyl-	pseudocumene	95-63-6			.1-1.0	.1-1.0	.1-1.0	.1-1.0
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	40-50	30-40	10-20	30-40
alkyd resin	alkyd resin	Sup. Conf.	20-30	20-30		5-10	20-30	

Chemical Hazard Data

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

		ACGIH-TLV				OSHA-PEL				S.R. Std.	S2	S3	CC						
Common Name	CAS. No.	8-Hour TWA	STEL	C	S	8-Hour TWA	STEL	C	S					H	M	N	I	O	
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	
2-butoxyethanol	111-76-2	20 ppm	not est.	not est.	not est.	50 ppm	not est.	not est.	y	not est.	n	y	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	
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	y	y	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	.025 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	y	y	n	
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	
cobalt neodecanoate	27253-31-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	y	n	y	n	n	y	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	100 ppm	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	
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	
fatty acids, c9-c13-neo-, cobalt salts	68955-83-9	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	y	n	y	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