

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, coughing, sneezing, central nervous system depression, intoxication, difficulty of breathing, tremors, severe lung irritation or damage, liver damage, kidney damage, pulmonary edema, convulsions, loss of consciousness, asphyxiation.

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

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

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

Medical conditions aggravated by exposure : Eye, skin, respiratory disorders, 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. 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. 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, toxic gases, barium compounds. Oxides of calcium, hydrocarbons.

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. Use non-sparking tools. 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 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, boots.

STABILITY AND REACTIVITY

(ANSI Section 10)

Under normal conditions : Stable can form explosive peroxides on long standing in air. See section 5 fire fighting measures

Materials to avoid : Oxidizers, acids, ammonium salts, magnesium.

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. Prolonged inhalation of mica may cause pneumoconiosis. Symptoms may include a progressive dry cough, shortness of breath on exertion, decreased chest expansion, weakness and weight loss. Other effects of overexposure may include toxicity to liver, kidney.

Carcinogenicity : 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. In a 2 year inhalation study conducted by the national toxicology program (NTP), exposure to naphthalene vapor produced nasal tumors in rats. The relevance of these results to humans is unknown. Naphthalene has been listed in ntp's report on carcinogens, eleventh edition as reasonably anticipated to be a human carcinogen. The international agency for research on cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of naphthalene in experimental animals and inadequate evidence for the carcinogenicity of naphthalene to humans. The overall IARC evaluation is group 2b, possibly carcinogenic to humans. 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.

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. Possible reproductive hazard based on animal data.

Mutagenicity : No mutagenic effects are anticipated

Teratogenicity : No teratogenic effects are anticipated

ECOLOGICAL INFORMATION

(ANSI Section 12)

No ecological testing has been done by akzo nobel paints llc 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
4130-6130	devshield 4130 rust penetrating metal primer, light gray	11.20	418.17	50.89	102 f	277-417	*320	UN1263, paint, combustible liquid, PGIII

Ingredients

Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	4130-6130
benzene, ethyl-	ethylbenzene	100-41-4	.1-1.0
2-propanol, 1-methoxy-, acetate	propylene glycol monomethyl ether	108-65-6	1-5
mica	mica	12001-26-2	1-5
benzene, dimethyl-	xylene	1330-20-7	.1-1.0
titanium oxide	titanium dioxide	13463-67-7	10-20
boric acid,(hbo2) barium salt	barium metaborate	13701-59-2	1-5
quartz	quartz	14808-60-7	.1-1.0
calcium carbonate	calcium carbonate	471-34-1	20-30
solvent naphtha (petroleum), medium aliphatic	medium aliphatic solvent naphtha	64742-88-7	20-30
heavy aromatic solvent naphtha	heavy aromatic solvent naphtha	64742-94-5	1-5
fatty acids, tall-oil, polymers with bisphenol a, epichlorohydrin and rosin	medium epoxy ester	68038-22-2	20-30
silica	amorphous silica	7631-86-9	1-5
naphthalene	naphthalene	91-20-3	.1-1.0

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
propylene glycol monomethyl ether	108-65-6	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
mica	12001-26-2	3 mg/m3	not est.	not est.	not est.	3 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
barium metaborate	13701-59-2	0.5 mg/m3	not est.	not est.	not est.	0.5 mg/m3	not est.	not est.	not est.	not est.	n	y	y	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
calcium carbonate	471-34-1	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
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
heavy aromatic solvent naphtha	64742-94-5	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
medium epoxy ester	68038-22-2	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	y	n
naphthalene	91-20-3	10 ppm	15 ppm	not est.	y	10 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	y	y	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

