



MATERIAL SAFETY DATA SHEET

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FIRE AND EXPLOSION HAZARD DATA

Extinguishing media : Dry chemical or foam water fog. Carbon dioxide.

Unusual fire and explosion hazards : 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. Rags, steel wool or waste soaked with this material may spontaneously catch fire if improperly discarded. Immediately after use, place soaked rags, steel wool or waste in a sealed water-filled metal container.

Special 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.

HEALTH HAZARD DATA

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

Effects of overexposure :

Inhalation : Irritation of respiratory tract, lungs. Prolonged inhalation may lead to mucous membrane irritation, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, coughing, central nervous system depression, metallic taste, difficulty of breathing, bronchitis, fever and chills, dehydration, pneumonia, pulmonary edema, pneumoconiosis, loss of consciousness, asphyxiation, death.

Skin contact : Irritation of skin. Prolonged or repeated contact can cause dermatitis, defatting.

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, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, gastro-intestinal disturbances, central nervous system depression, difficulty of breathing, convulsions, loss of consciousness.

Supplemental health information : Other effects of overexposure may include toxicity to liver, kidney. May be absorbed through skin. The international agency for research on cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of benzene to humans and experimental animals (group 1). The national toxicology program (NTP) has determined that benzene is known to be carcinogenic. Benzene is regulated by OSHA as a carcinogen. 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. Contains crystalline silica which is considered a hazard by inhalation. IARC has classified crystalline silica as probably carcinogenic for humans (2a). This classification is based on the findings of laboratory animal studies that were considered sufficient and data from epidemiological studies that were considered limited for carcinogenicity. Crystalline silica is also a known cause of silicosis, a noncancerous lung disease. NTP has classified crystalline silica a reasonably anticipated human carcinogen.

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

FIRST AID PROCEDURES

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.

REACTIVITY DATA

Stability : Stable

Incompatibility : Oxidizers, acids, bases, amines, aluminum, zinc, magnesium, sodium, potassium.

Conditions to avoid : Elevated temperatures, contact with oxidizing agent, contact with aluminum or zinc, sparks, open flame. Ignition sources

Hazardous decomposition products : Carbon monoxide, carbon dioxide, acrolein, oxygen, aldehydes, toxic gases, barium compounds.

Hazardous polymerization : Will not occur

SPILL OR LEAK PROCEDURES

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. Evacuate all unnecessary personnel. Place collected material in proper container. Complete personal protective equipment must be used during cleanup. Sweep up material. 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.

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

SPECIAL PROTECTION INFORMATION

Respiratory protection : Control environmental concentrations below applicable standards. 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, boots.

SPECIAL PRECAUTIONS

Handling and storage : Store below 100F. 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 special protection information. Empty containers may contain hazardous residues. Ground equipment when transferring to prevent accumulation of static charge. Avoid spontaneous combustion of contaminated rags and other easily ignitable organic accumulations.

Physical Data

Product Code	Description	Wt./Gal.	VOC gr./ltr.	% Volatile by Volume	Flash Point	Boiling Range	HMS	DOT, proper shipping name
4120-1000	devguard 4120 all purpose metal & galvanized primer white	10.67	388.51	49.44	102 f	176-428	*220	paint, combustible liquid, UN1263, PGIII

Ingredients

Product Codes with % by Weight

	4120-1000
boric acid,(hbo2) barium salt	5-10
barium metaborate (modified)	5-10
mica-group minerals	1-5
linseed oil	5-10
stoddard solvent	10-20
quartz	.1-1.0
antigorite	1-5
benzene	.01-1
heavy solvent naphtha	10-20
anthophyllite, nonasbestiform	.1-1.0
talc	5-10
titanium oxide	5-10
tremolite, nonasbestiform	5-10
fatty acids, tall-oil, polymers with ethylene glycol, glycerol, isophthalic acid,pentaerythritol and propylene glycol	10-20

Chemical Hazard Data

CHEMICAL NAME	COMMON NAME	CAS. NO.	ACGIH-TLV		OSHA-PEL			S.R.			S C		
			8-HOUR TWA	STEL	8-HOUR TWA	STEL	C	S	STD.	2	3	N	I O
boric acid,(hbo2) barium salt	barium metaborate	13701-59-2	0.5 mg/m³	ne	0.5 mg/m³	ne	ne	ne	ne	ne	n	y	n n n
barium metaborate (modified)	barium metaborate (modified)	supp. conf.	0.5 mg/m³	ne	0.5 mg/m³	ne	ne	ne	ne	ne	n	n	n n n
mica-group minerals	mica	12001-26-2	3 mg/m³	ne	3 mg/m³	ne	ne	ne	ne	ne	n	n	n n n
linseed oil	linseed oil, alkali refined	8001-26-1	ne	ne	ne	ne	ne	ne	ne	ne	n	n	n n n
stoddard solvent	mineral spirits	8052-41-3	100 ppm	ne	100 ppm	ne	ne	ne	ne	ne	n	n	n n n
quartz	quartz	14808-60-7	0.1 mg/m³	ne	0.1 mg/m³	ne	ne	ne	ne	ne	n	n	n n y
antigorite	same	12135-86-3	ne	ne	ne	ne	ne	ne	ne	ne	n	n	n n n
benzene	benzene	71-43-2	10 ppm	ne	1 ppm	ne	ne	ne	ne	ne	n	y	y y y
heavy solvent naphtha	same	64741-65-7	100 ppm	ne	100 ppm	ne	ne	ne	ne	ne	n	n	n n n
anthophyllite, nonasbestiform	same	17068-78-9	ne	ne	ne	ne	ne	ne	ne	ne	n	n	n n n
talc	talc	14807-96-6	2 mg/m³	ne	2 mg/m³	ne	ne	ne	ne	ne	n	n	n n n
titanium oxide	titanium dioxide	13463-67-7	10 mg/m³	ne	10 mg/m³	ne	ne	ne	ne	ne	n	n	n n n
tremolite, nonasbestiform	same	14567-73-8	ne	ne	ne	ne	ne	ne	ne	ne	n	n	n n n
fatty acids, tall-oil, polymers with ethylene glycol, glycerol, isophthalic acid,pentaerythritol and propylene glycol	alkyd resin	68333-62-0	ne	ne	ne	ne	ne	ne	ne	ne	n	n	n n n

Footnotes:

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

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

n/a = not applicable
ne = not established

ppm = parts per million
mg/m³ = milligrams per cubic meter

S2 = Sara Section 302 EHS
S3 = Sara Section 313 Chemical

CC = CERCLA Chemical
Carcinogenicity Listed By:
N = NTP, I = IARC, O = OSHA
y = yes, n = no