

SOLARGARD S.G. WHITE 5 GL PL

Version 2.

Print Date 07/07/2009

REVISION DATE: 06/29/2009

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : SOLARGARD S.G. WHITE 5 GL PL
 Product code : 1610700005

COMPANY : Republic Powdered Metals
 2628 Pearl Road
 Medina, OH 44256

Telephone : (800) 551-7081
 Emergency Phone: : 1-800-551-7081
 After Hours: Chemtrec 1-800-424-9300

Product use : Coating

SECTION 2 - HAZARDS IDENTIFICATION**Emergency Overview**

White. Liquid. No serious effects anticipated under normal conditions of use. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : No serious effects anticipated under normal conditions of use.
 Eyes : Direct contact may cause mild irritation.
 Ingestion : May cause gastrointestinal irritation, nausea, and vomiting.
 Skin : May cause mild irritation.

Aggravated Medical Conditions

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Long term overexposure to propylene glycol caused liver abnormalities, kidney damage in laboratory animals. Repeated excessive ingestion may cause central nervous system effects. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Water	7732-18-5	40.0 - 70.0
Acrylic Polymer	NJTSRN# 51721300-5797P	15.0 - 40.0
Titanium dioxide	13463-67-7	15.0 - 40.0
Propylene glycol	57-55-6	7.0 - 13.0
Clay	1332-58-7	3.0 - 7.0
2-Methyl-2,4-Pentanediol	107-41-5	1.0 - 5.0
Heavy paraffinic distillate	64741-88-4	- <1.0
Ammonium hydroxide	1336-21-6	- <0.1



SOLARGARD S.G. WHITE 5 GL PL

Version 2.
REVISION DATE: 06/29/2009

Print Date 07/07/2009

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

- Inhalation : Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
- Eye contact : Flush with water for 15 minutes. If irritation persists, get medical attention.
- Skin contact : Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
- Ingestion : Get medical attention. Do not induce vomiting.
- Notes to physician : Not applicable.

SECTION 5 - FIRE FIGHTING MEASURES

- Flash point : Not available.
- Method : Not applicable.
- Lower explosion limit : Not available.
- Upper explosion limit : Not available.
- Autoignition temperature : Not available.
- Extinguishing media : This product is not expected to burn under normal conditions of use.
- Hazardous combustion products : Carbon monoxide and carbon dioxide can form. Smoke, fumes.
- Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
- Fire and explosion conditions : This product not expected to ignite under normal conditions of use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Transfer to appropriate container for disposal. Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal. Use appropriate protective equipment. Avoid contact with material.

SECTION 7 - HANDLING AND STORAGE

Handle in compliance with common hygienic practices. Clean hands thoroughly after handling. Keep from freezing. Do not use in confined or poorly ventilated areas. Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. Store in sealed containers in a dry, ventilated warehouse location above freezing.



SOLARGARD S.G. WHITE 5 GL PL

Version 2.
REVISION DATE: 06/29/2009

Print Date 07/07/2009

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

- Respiratory protection : Not required under normal conditions of use. Wear appropriate, NIOSH/MSHA approved respirator with combination particulate filter and vapor/gas removing cartridge when the ventilation is not adequate or if it is necessary to abrade or grind surfaces coated with this product.
- Hand protection : Use suitable impervious rubber or vinyl gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.
- Skin and body protection : Prevent contact with shoes and clothing. Use rubber apron and overshoes.
- Protective measures : Other equipment not normally required. Use professional judgment in the selection, care, and use.
- Engineering measures : Not required under normal conditions of use. Use local exhaust when the general ventilation is inadequate.

Exposure Limits

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Regulation</u>	<u>Limit</u>	<u>Form</u>
Titanium dioxide	13463-67-7	ACGIH TWA: OSHA PEL: OSHA TWA: OSHA TWA:	10 mg/m3 15 mg/m3 15 mg/m3 5 mg/m3	Total dust. Total dust. Respirable fraction.
Clay	1332-58-7	ACGIH TWA: OSHA PEL: OSHA PEL: OSHA TWA: OSHA TWA:	2 mg/m3 15 mg/m3 5 mg/m3 15 mg/m3 5 mg/m3	Respirable fraction. Total dust. Respirable fraction. Total dust. Respirable fraction.
Heavy paraffinic distillate	64741-88-4	OSHA PEL: ACGIH TWA: ACGIH STEL:	2,000 mg/m3 5 mg/m3 10 mg/m3	Mist. Mist.
Ammonium hydroxide	1336-21-6	ACGIH TWA: ACGIH STEL: OSHA PEL:	25 ppm 35 ppm 35 mg/m3	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid



SOLARGARD S.G. WHITE 5 GL PL

Version 2.

Print Date 07/07/2009

REVISION DATE: 06/29/2009

Color	: White
Odor	: Mild Ammonia
pH	: 9 - 10
Vapour pressure	: Not available.
Vapor density	: Heavier than air
Melting point/range	: Not available.
Freezing point	: Not available.
Boiling point/range	: 212.5 °F, 101 °C
Water solubility	: Soluble
Specific Gravity	: 1.26
% Volatile Weight	: 49 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	: Strong acids.Strong bases.
Stability	: Stable
Hazardous polymerization	: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Propylene glycol, CAS-No.: 57-55-6 Acute oral toxicity (LD-50 oral)	30,000 mg/kg (Rat) 18,000 mg/kg (Rabbit) 19,000 mg/kg (Dog) 23,900 - 31,800 mg/kg (Mouse) 18,400 - 196,000 mg/kg (Guinea pig)
2-Methyl-2,4-Pentanediol, CAS-No.: 107-41-5 Acute oral toxicity (LD-50 oral)	4,790 mg/kg (Rat) 3,500 mg/kg (Mouse)
Ammonium hydroxide, CAS-No.: 1336-21-6 Acute oral toxicity (LD-50 oral)	350 mg/kg (Rat)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method : Waste not regulated under RCRA. Dispose of in compliance with state and local regulations.



SOLARGARD S.G. WHITE 5 GL PL

Version 2.
REVISION DATE: 06/29/2009

Print Date 07/07/2009

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

North American Inventories:

All components are listed or exempt from the TSCA inventory.
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:

SARA 313 Components : None present or none present in regulated quantities.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

OSHA Hazardous Components :

Titanium dioxide	13463-67-7
Clay	1332-58-7
Heavy paraffinic distillate	64741-88-4
Ammonium hydroxide	1336-21-6

OSHA Status: Considered : Irritant
hazardous based on the Carcinogen
following criteria:

OSHA Flammability : Not Regulated

Regulatory VOC (less water and : 213 g/l
exempt solvent)

VOC Method 310 : 7 %

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:
Heavy paraffinic distillate 64741-88-4

U.S. State Regulations:

MASS RTK Components	: Titanium dioxide	13463-67-7
	Clay	1332-58-7
	2-Methyl-2,4-Pentanediol	107-41-5

Penn RTK Components	: Water	7732-18-5
	Acrylic Polymer	NJTSRN# 51721300-5797P
	Titanium dioxide	13463-67-7
	Propylene glycol	57-55-6
	Clay	1332-58-7



SOLARGARD S.G. WHITE 5 GL PL

Version 2.

Print Date 07/07/2009

REVISION DATE: 06/29/2009

	2-Methyl-2,4-Pentenediol	107-41-5
NJ RTK Components	:	Water 7732-18-5
		Acrylic Polymer NJTSRN# 51721300-5797P
		Titanium dioxide 13463-67-7
		Propylene glycol 57-55-6
		Clay 1332-58-7
		Heavy paraffinic distillate 64741-88-4

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:

None known.

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
Flammability	0
Reactivity	0
PPE	

- 0 = Minimum
- 1 = Slight
- 2 = Moderate
- 3 = Serious
- 4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

- ACGIH - American Conference of Governmental Hygienists
- NTP - National Toxicology Program
- DOT - Department of Transportation
- DSL - Domestic Substance List
- EPA - Environmental Protection Agency
- HMIS - Hazardous Materials Information System
- IARC - International Agency for Research on Cancer
- MSHA - Mine Safety Health Administration
- NDSL - Non-Domestic Substance List
- NIOSH - National Institute for Occupational Safety and Health
- CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
- OSHA - Occupational Safety and Health Administration

- PEL - Permissible Exposure Limit
- RCRA - Resource Conservation and Recovery Act
- RTK - Right To Know
- SARA - Superfund Amendments and Reauthorization Act
- STEL - Short Term Exposure Limit
- TLV - Threshold Limit Value
- TSCA - Toxic Substances Control Act
- TWA - Time Weighted Average
- V - Volume
- VOC - Volatile Organic Compound
- WHMIS - Workplace Hazardous Materials Information System