

# Material Safety Data Sheet



Date of issue 20 June 2012

Version 4

## 1. Product and company identification

**Product name** : PS 870 A 2 Part A  
**Code** : PS 870 A 2 Part A  
**Supplier** : PPG Aerospace PRC-DeSoto  
12780 San Fernando Road  
Sylmar, CA 91342  
Phone: 818 362 6711  
**Emergency telephone number** : (412) 434-4515 (U.S.)  
(514) 645-1320 (Canada)  
01-800-00-21-400 (Mexico)

## 2. Hazards identification

**Emergency overview** : DANGER!  
OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. SANDING AND GRINDING DUSTS MAY BE HARMFUL IF INHALED. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER.  
 Keep away from combustible material. Do not breathe vapor or mist. Do not swallow. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

### Potential acute health effects

**Inhalation** : Harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
**Ingestion** : Harmful or fatal if swallowed.  
**Skin** : Irritating to skin. May cause an allergic skin reaction.  
**Eyes** : Irritating to eyes.

### Over-exposure signs/symptoms

**Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
**Ingestion** : No specific data.  
**Skin** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
**Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness

**Medical conditions aggravated by over-exposure** : Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

## 2. Hazards identification

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See toxicological information (Section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
Manganese dioxide	1313-13-9	15 - 40
Terphenyl, hydrogenated	61788-32-7	10 - 30
magnesium chromate	13423-61-5	10 - 30
Zeolites	1318-02-1	3 - 7
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	1 - 5
1,3-diphenylguanidine	102-06-7	1 - 5
terphenyl	26140-60-3	1 - 5
bis(piperidinothiocarbonyl) tetrasulphide	120-54-7	0.5 - 1.5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Ingestion** :  Swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. Fire-fighting measures

**Flammability of the product** :  Contact with combustible material may cause fire. This material increases the risk of fire and may aid combustion. In a fire or if heated, a pressure increase will occur and the container may burst.

### Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon oxides  
nitrogen oxides  
sulfur oxides  
metal oxide/oxides

## 5 . Fire-fighting measures

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

**Personal precautions** :  No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

**Large spill** :  Stop leak if without risk. Move containers from spill area. Approach release from upwind. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

**Small spill** :  Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Dispose of via a licensed waste disposal contractor.

## 7 . Handling and storage

**Handling** :  Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not breathe vapor or mist. Ingestion of product or cured coating may be harmful. Do not swallow. Do not get in eyes or on skin or clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from combustible material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Separate from reducing agents and combustible materials. See NFPA 430, Code for the Storage of Liquid and Solid Oxidizers. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

Name	Result	ACGIH	OSHA	Ontario	Mexico	PPG

## 8 . Exposure controls/personal protection

manganese dioxide	TWA	0.2 mg/m <sup>3</sup> (as Mn)	Not established	0.2 mg/m <sup>3</sup> (as Mn)	0.2 mg/m <sup>3</sup> (as Mn)	Not established
	STEL	Not established	5 mg/m <sup>3</sup> (as Mn) C	Not established	Not established	Not established
Terphenyl, hydrogenated	TWA	0.5 ppm	Not established	0.5 ppm	0.5 ppm	Not established
magnesium chromate	TWA	0.05 mg/m <sup>3</sup> (measured as Cr)	5 µg/m <sup>3</sup> 0.5 mg/m <sup>3</sup> (as Cr)	0.05 mg/m <sup>3</sup> (as Cr)	0.05 mg/m <sup>3</sup>	Not established
	STEL	Not established	1 mg/10m <sup>3</sup> Z C	Not established	Not established	Not established
terphenyl	TWA	Not established	Not established	0.05 mg/m <sup>3</sup>	Not established	Not established
	STEL	0.53 ppm C	1 ppm C	0.53 ppm C	0.5 ppm C	Not established

### Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

### Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** :  this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety glasses with side shields.

**Hands** :  Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Gloves** : butyl rubber

**Respiratory** : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## 8 . Exposure controls/personal protection

- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: Not applicable.
- Material supports combustion.** : Yes.
- Color** : Black.
- Odor** : Not available.
- pH** : Not available.
- Boiling/condensation point** : 340°C (644°F)
- Melting/freezing point** : Not available.
- Specific gravity** : 1.8
- Density ( lbs / gal )** : 15.02
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Evaporation rate** : Not available.
- VOC** : Not available.
- Partition coefficient: n-octanol/water** : Not available.

## 10 . Stability and reactivity

- Stability** : The product may not be stable under certain conditions of storage or use.
- Conditions to avoid** : Drying on clothing or other combustible materials may cause fire. Avoid increased storage temperature. Pressure hazard
- Materials to avoid** : Reactive or incompatible with the following materials: combustible materials, organic materials, metals, acids, alkalis, oxidizing materials, reducing materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11 . Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Manganese dioxide	LD50 Oral	Rat	3478 mg/kg	-
Terphenyl, hydrogenated	LD50 Oral	Rat	>10000 mg/kg	-
Zeolites	LD50 Oral	Rat	>5 g/kg	-
1,3-diphenylguanidine	LD50 Oral	Rat	323 mg/kg	-
terphenyl	LD50 Oral	Rat	1400 mg/kg	-

**Conclusion/Summary** : Not available.

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Defatting irritant

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

## 11 . Toxicological information

**Target organs** : Contains material which causes damage to the following organs: lungs, skin, central nervous system (CNS), nose/sinuses.  
Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, liver, cardiovascular system, upper respiratory tract, eye, lens or cornea.

### Carcinogenicity

**Carcinogenicity** : Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

### Classification

Product/ingredient name	ACGIH	IARC	NTP	OSHA
magnesium chromate	A1	1	Proven.	-
Zeolites	-	3	-	-

**Carcinogen Classification code:** ACGIH: A1, A2, A3, A4, A5  
IARC: 1, 2A, 2B, 3, 4  
NTP: Proven, Possible  
OSHA: +  
Not listed or regulated as a carcinogen: -

**Fertility effects** : Contains material which may impair male fertility, based on animal data.

## 12 . Ecological information

**Environmental effects** : Water polluting material. May be harmful to the environment if released in large quantities.

## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

## 14 . Transport information

Regulation	UN number	Proper shipping name	Classes	PG*	Additional information
UN	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (magnesium chromate)	9	III	-
IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (magnesium chromate). Marine pollutant (magnesium chromate)	9	III	-

## 14 . Transport information

DOT	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (magnesium chromate)	9	III	<b>Reportable quantity</b> 63.298 lbs / 28.737 kg [0.50611 gal / 1.9158 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
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PG\* : Packing group

Reportable quantity RQ :  ERCLA: Hazardous substances.: sodium hydroxide: 1000 lbs. (454 kg); terphenyl: 1 lb. (0.454 kg); magnesium chromate; manganese dioxide;

## 15 . Regulatory information

- United States inventory (TSCA 8b)** : All components are listed or exempted.
- Australia inventory (AICS)** : All components are listed or exempted.
- Canada inventory (DSL)** : All components are listed or exempted.
- China inventory (IECSC)** : All components are listed or exempted.
- Europe inventory (REACH)** : Please contact your supplier for information on the inventory status of this material.
- Japan inventory (ENCS)** :  Not determined.
- Korea inventory (KECI)** : All components are listed or exempted.
- New Zealand (NZIoC)** : Substance Use Restricted
- Philippines inventory (PICCS)** : All components are listed or exempted.

### United States

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: terphenyl; Terphenyl, hydrogenated; manganese dioxide

 ERCLA: Hazardous substances.: sodium hydroxide: 1000 lbs. (454 kg); terphenyl: 1 lb. (0.454 kg); magnesium chromate; manganese dioxide;

### SARA 311/312 MSDS Distribution - Chemical Inventory - Hazard Identification:

Chemical name	CAS #	Acute	Chronic	Fire	Reactive	Pressure
<input checked="" type="checkbox"/> manganese dioxide	1313-13-9	Y	Y	N	Y	N
Terphenyl, hydrogenated	61788-32-7	N	N	N	N	N
magnesium chromate	13423-61-5	Y	Y	N	N	N
Zeolites	1318-02-1	Y	N	N	N	N
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	N	N	N	N	N
1,3-diphenylguanidine	102-06-7	Y	Y	N	N	N
terphenyl	26140-60-3	N	N	N	N	N
bis(piperidinothiocarbonyl) tetrasulphide	120-54-7	Y	N	N	N	N

Product as-supplied : Y Y N Y N

### SARA 313

#### Supplier notification

Chemical name	CAS number	Concentration
<input checked="" type="checkbox"/> manganese dioxide	1313-13-9	15 - 40
magnesium chromate	13423-61-5	10 - 30
terphenyl	26140-60-3	1 - 5

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

## 15. Regulatory information

### Canada

#### WHMIS (Canada)

: Class C: Oxidizing material. Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

### Mexico

#### Classification

Flammability : 0    Health : 3    Reactivity : 1

## 16. Other information

### Hazardous Material Information System (U.S.A.)

Health : 3 \*    Flammability : 0    Physical hazards : 1

(\* ) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)

Health : 3    Flammability : 0    Instability : 1

Date of previous issue : 6/5/2012.

Organization that prepared the MSDS : EHS

✔ Indicates information that has changed from previously issued version.

### Disclaimer

*The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.*