MATERIAL SAFETY DATA SHEET Geon™ DB4820B White Lo Smoke

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone:Emergency telephone:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	Geon [™] DB4820B White Lo Smoke
Product code ::	FO20029020
Chemical Name	Mixture
CAS-No.	Mixture
Product Use	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight percent
Quartz	14808-60-7	0.1 - 1
Antimony trioxide	1309-64-4	1 - 5
Zinc oxide	1314-13-2	1 - 5
Barium sulfate	7727-43-7	10 - 30
Calcium carbonate	1317-65-3	30 - 60

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Skin contact, Ingestion		
Acute exposure			
Inhalation	: Inhalation of airborne droplets may cause irritation of the respiratory tract.		
Ingestion	: May be harmful if swallowed.		
Eyes	: May cause eye and skin irritation.		
Skin	: Experience shows no unusual dermatitis hazard from routine handling.		

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Medical Conditions : None known. Aggravated by Exposure: : None known.		
	4. FIRST AID MEASURES	
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. When symptoms persist or in all cases of doubt seek medical advice.	
Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.	
Eyes	: Rinse immediately with plenty of water for at least 15 minutes. If ey irritation persists, seek medical attention.	
Skin	: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.	
	5. FIRE-FIGHTING MEASURES	
Flash point	: no data available	
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 no data available no data available Not applicable Carbon dioxide blanket, Water spray, Dry powder, Foam. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) unde fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. 	
	ACCIDENTAL RELEASE MEASURES	
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.	
Environmental precautions	: The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.	
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in	

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		appropriate container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.		
		7. HANDLING AND STORAGE		
Handling	:	Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.		
Storage	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry place.		
8. EX	8. EXPOSURE CONTROLS/PERSONAL PROTECTION			
Respiratory protection	:	No personal respiratory protective equipment normally required.		
Eye/Face Protection	:	Safety glasses with side-shields		
Hand protection	:	Protective gloves		
Skin and body protection	:	Long sleeved clothing		
Additional Protective Measures	:	Safety shoes		
General Hygiene Considerations	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.		
Engineering measures	:	Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.		
Exposure limit(s)				

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Components	Value	Exposure time	Exposure type	List:
Antimony trioxide	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	MX OEL
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	Recommended exposure limit (REL):	as Sb	NIOSH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	OSHA Z1A
Barium sulfate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
Quartz	0.025 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	0.05 mg/m3	Recommended exposure limit (REL):	Respirable dust.	NIOSH
	0.1 mg/m3	Time Weighted Average (TWA):	Respirable dust.	OSHA Z1A
	0.1 mg/m3	Time Weighted Average (TWA):	Respirable.	Z3
	0.3 mg/m3	Time Weighted Average (TWA):	Total dust.	Z3
	0.1 mg/m3	Time Weighted Average (TWA):		MX OEL
Zinc oxide	2 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	10 mg/m3	Short Term Exposure Limit (STEL):	Respirable fraction.	ACGIH
	5 mg/m3	Recommended exposure limit (REL):	Fume.	NIOSH
	5 mg/m3	Recommended exposure limit (REL):	Dust.	NIOSH

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15 mg/		Dust.	NIOSH
	Time Period (if specified):		
10 mg/	m3 Short Term Exposure Limit	Fume.	NIOSH
	(STEL):		
5 mg/r	m3 PEL:	Fume.	OSHA Z1
5 mg/r	n3 PEL:	Respirable fraction.	OSHA Z1
15 mg/	m3 PEL:	Total dust.	OSHA Z1
5 mg/r	n3 Time Weighted Average	Fume.	OSHA Z1A
_	(TWA):		
5 mg/r	n3 Time Weighted Average	Respirable fraction.	OSHA Z1A
	(TWA):		
10 mg/	m3 Time Weighted Average	Total dust.	OSHA Z1A
	(TWA):		
10 mg/	m3 Short Term Exposure Limit	Fume.	OSHA Z1A
	(STEL):		
5 mg/r	m3 Time Weighted Average	Fume.	MX OEL
	(TWA):		
10 mg/	m3 Time Weighted Average	Dust.	MX OEL
	(TWA):		
10 mg/	m3 Short Term Exposure Limit	Fume.	MX OEL
	(STEL):		

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility
- liquid
 viscous, liquid
 WHITE
 very faint
 not applicable
 not applicable
 immiscible
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- Not established
 Not determined
 Not applicable
 Not determined
 Not determined
- : Not applicable
- **10. STABILITY AND REACTIVITY** Stability : Stable Hazardous Polymerization Will not occur. : Conditions to avoid Keep away from oxidizing agents and open flame. To avoid thermal • decomposition, do not overheat. Incompatible Materials : Incompatible with strong acids and oxidizing agents., Avoid contact with acetal homopolymers and acetal copolymers during processing. Hazardous decomposition Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen : (NOx), hydrogen chloride (HCl), other hazardous materials, and products smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F).

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11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
14808-60-7	Quartz	Systemic effects	Eyes, Respiratory system.
1309-64-4	Antimony trioxide	Systemic effects	Eyes, Respiratory system.
		sensitizer	Skin.
1314-13-2	Zinc oxide	Systemic effects	Respiratory system.
7727-43-7	Barium sulfate	Irritant	Respiratory system.
		Systemic effects	Eyes, Respiratory system.
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, Respiratory
			system.

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
1309-64-4	Antimony trioxide	Oral LD50	> 34,600 mg/kg	rat
1314-13-2	Zinc oxide	LC50	2500 mg/m3	mouse
		LC50		mouse
		Oral LD50	7,950 mg/kg	mouse

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
14808-60-7	Quartz	no	1	no
1309-64-4	Antimony trioxide	no	2B	no

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.

2A - The component is probably carcinogenic to humans.

2B - The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

1 - The component is known to be a human carcinogen.

2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

Quartz 14808-60-7 This material in its free releasable form may cause respiratory tract irritation. Long-term exposure may cause coughing, chest pain, diminished chest expansion and possibly silicosis, which is a scarring of the lungs.

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Additional Health Hazard Information:

Antimony trioxide 1309-64-4 Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

	12. ECOLOGICAL INFORMATION
Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Environmental toxicity has not been established for this mixture as a whole.
Bioaccumulation Potential	: no data available
Additional advice	: no data available
	13. DISPOSAL CONSIDERATIONS
Product	: Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
Contaminated packaging	: Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
	14. TRANSPORT INFORMATION
U.S. DOT Classification	: Refer to specific regulation.
ICAO/IATA	: Refer to specific regulation.
IMO/IMDG (maritime)	: Refer to specific regulation.
	15. REGULATORY INFORMATION
US Regulations:	
OSHA Status	: Classified as hazardous based on components.
TSCA Status	: All components of this product are listed on or exempt from the TSCA Inventory.
US. EPA CERCLA Hazardous	Substances (40 CFR 302)
not applicable	
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California Proposition:WARNING! This product contains a chemical known to the State of65California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Chemical Name	CAS-No.	Weight percent
ANTIMONY COMPOUNDS	1309-64-4	1.00 - 5.00
ZINC COMPOUNDS	1314-13-2	0.10 - 1.00
ZINC COMPOUNDS	1314-98-3	1.00 - 5.00
ZINC COMPOUNDS	7779-90-0	0.10 - 1.00

Canadian Regulations:

National Pollutant Release Inventory (NPR	I)		
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Antimony trioxide	1309-64-4	1.00 - 5.00	
Zinc oxide	1314-13-2	0.10 - 1.00	
Zinc sulfide	1314-98-3	1.00 - 5.00	
Phosphoric acid, zinc salt (2:3)	7779-90-0	0.10 - 1.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	1
1309-64-4	
1314-13-2	

DSL

All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

Australia AICS	:	Not determined
China IECS	:	Not determined

:

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:	Not determined
:	Not determined
:	Not determined
:	Not determined
	: : :

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.