

SDS Revision Date (mm/dd/yyyy): 03/14/2019

Page 1 of 9

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on label			
	:	EPOXYBOND® POOL PUTTY RESIN WHITE	
Product code(s)	:	Z530106, 530318	
Recommended use of the chem	ica	I and restrictions on use	
	:	Epoxy resin Use pattern: Consumer use Recommended restrictions: None known	
Chemical family	:	Mixture	
Name, address, and telephone r Atlas Minerals and Chemicals In 1227 Valley Road Mertztown, PA, USA 19539		nber of supplier: Name, address, and telephone number of the manufacturer: Refer to supplier	
Supplier's Telephone #	:	610-682-7171	
24 Hr. Emergency Tel #	:	Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.)	

SECTION 2. HAZARD IDENTIFICATIONS

Classification of the chemical

Solid, stiff, white colored putty / Mild characteristic odor

Most important hazards: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Skin corrosion/irritation – Category 2 Serious eye damage/eye irritation – Category 2 Skin sensitization – Category 1

Label elements

Hazard pictogram(s)



Signal Word WARNING!

Hazard statement(s)

Causes skin irritation Causes serious eye irritation May cause an allergic skin reaction

Precautionary statement(s)

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Store locked up.

Dispose of contents/container to an approved waste disposal plant.



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Page 2 of 9

SAFETY DATA SHEET

Other hazards

Toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No	Weight-%
Bisphenol A epoxy resin	25068-38-6	15.0 – 20.0
Trimethylolpropane triacrylate	15625-89-5	1.0 – 5.0
Silica, fumed	112945-52-5	1.0 – 3.0
Titanium dioxide (white and gray only)	13463-67-7	0.5 – 1.5
Zinc oxide (white only)	1314-13-2	0.5 – 1.5
Silica, Quartz	14808-60-7	0.1 – 1.0

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact	: Wash off immediately with soap and plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	: Wash off immediately with soap and plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Ingestion	: If conscious give large amounts of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Most important sympto	oms and effects
Symptoms	: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause irritation to the mucous membranes and upper respiratory tract. May cause gastrointestinal irritation,

nausea, diarrhea, and vomiting. Inhalation may aggravate respiratory problems. May aggravate preexisting skin conditions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media				
Suitable extinguishing media :	Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.			
Unsuitable extinguishing media $:$	Not determined.			
Specific hazards arising from the chemical				
:	Not determined.			
Hazardous combustion products				
:	Carbon monoxide. Carbon dioxide (CO2). Aldehydes.			
Protective equipment and precaution	ns for firefighters			
:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area and fight fire from a safe distance. Cool exposed containers with water to prevent rupturing.			

SECTION 6. ACCIDENTAL RELEASE MEASURES



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Page 3 of 9

SAFETY DATA SHEET

Personal precautions	:	Use personal protective equipment as required.
Environmental precautions	:	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.
Methods and material for containment and cleaning up		
Methods for containment	:	Prevent further leakage or spillage if safe to do so.
Methods for clean-up	:	Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling	
Advice on safe handling	: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash face, hands, and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Discard shoes that become saturated with product. Do not ingest.
Conditions for safe storage, inc	uding any incompatibilities
Storage conditions	: Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep out of the reach of children. Avoid excessive heat in storage to maintain product quality. Keep away from incompatible materials.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silica, fumed 112945-52-5	-	TWA: 20 Million particles per cubic feet	-
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³
Zinc oxide 1314-13-2	STEL: 10 mg/m ³ respirable fraction TWA: 2 mg/m ³ respirable fraction	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ fume (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) STEL: 10 mg/m ³ fume	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume
Silica, Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable fraction	 (vacated) TWA: 0.1 mg/m³ respirable dust (30)/(%SiO2 + 2) mg/m³ TWA total dust (250)/(%SiO2 + 5) mppcf TWA respirable fraction (10)/(%SiO2 + 2) mg/m³ TWA respirable fraction 	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust

Appropriate engineering controls

Engineering controls	:	Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.
Individual protection measures	suc	h as personal protective equipment
Eye/face protection	:	Refer to 29 CFR 1910.133 for eye and face protection regulations. Chemical goggles or equivalent eye protection.
Skin and body protection	:	Refer to 29 CFR 1910.138 for appropriate skin and body protection. Wear suitable protective clothing.
Respiratory protection	:	Refer to 29 CFR 1910.134 for respiratory protection requirements. Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection.



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Atlas Minerals & Chemicals, Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 4 of 9

SAFETY DATA SHEET

General hygiene considerations

: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Inf	Information on basic physical and chemical properties				
	Physical state/appearance/color				
		:	Solid, stiff white colored putty		
	Odor	:	Mild characteristic		
	Odor threshold	:	Not determined		
	рН	:	Not applicable		
	Melting point/freezing point	:	Not determined		
	Initial boiling point and boiling	g ra	ange		
		:	149 °C / 300 °F		
	Flash point (method)	:	232 °C / 450 °F (COC)		
	Evaporation rate	:	Not applicable		
	Flammability (solid, gas)	:	Not determined		
	Upper flammability limits	:	Not determined		
	Lower flammability limit	:	Not determined		
	Vapor pressure	:	Very low		
	Vapor density (remarks)	:	Heavier than air (Air=1)		
	Specific gravity	:	1.8-2.2		
	Water solubility	:	Insoluble in water		
	Solubility in other solvents	:	Not determined		
	Partition coefficient	:	Not applicable		
	Auto-ignition temperature	:	Not determined		
	Decomposition temperature	:	Not determined		
	Kinematic viscosity	:	Not applicable		
	Dynamic viscosity	:	Not applicable		
	Explosive properties	:	Not determined		
	Oxidizing properties	:	Not determined		
	VOC content	:	None		

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not reactive under normal conditions.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous read	ctio	ns
	:	None under normal processing.
Hazardous polymerization	:	Hazardous polymerization does not occur.
Conditions to avoid	:	See Sec. 7 Handling & Storage.
Imcompatible materials	:	Mineral acids. Bases. Amines. Mercaptans. Oxidizers.
Hazardous decomposition products		
	:	Carbon monoxide. Carbon dioxide (CO2). Aldehydes.

SECTION 11. TOXICOLOGICAL INFORMATION



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Atlas Minerals & Chemicals, Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 5 of 9

SAFETY DATA SHEET

Eye contact	: Causes serious eye irritation.
Skin contact	: Causes skin irritation.
Inhalation	: Do not inhale.
Ingestion	: Do not ingest.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Bisphenol A epoxy resin 25068-38-6	= 11400 mg/kg (Rat)	-	_
Trimethylolpropane triacrylate 15625-89-5	= 5190 µL/kg (Rat)	= 5000 mg/kg (Rabbit)	-
Silica, fumed 112945-52-5	= 3160 mg/kg (Rat)	-	-
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Zinc oxide 1314-13-2	> 5000 mg/kg (Rat)	-	-
Silica, Quartz 14808-60-7	= 500 mg/kg (Rat)	_	-

Information on physical, chemical and toxicological effects

Symptoms

: Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

: May cause an allergic skin reaction. Sensitiztion

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. However,

: the product as a whole has not been tested. Silica (quartz) is a possible carcinogen when it appears as a respirable dust. Titanium dioxide is a possible carcinogen when it appears as a respirable dust.

Chemical name	ACGIH	IARC	<u>NTP</u>	<u>OSHA</u>
Silica, fumed 112945-52-5		Group 3		
Titanium dioxide 13463-67-7		Group 2B		Х
Silica, Quartz 14808-60-7	A2	Group 1	Known	Х

Legend

ACGIH (American Conference of Governmental Industrial Hygienists) A2 - Suspected Human Carcinogen IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity

: Not determined.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	:	Toxic to aquatic life with long lasting effects.
Persistence/degradability	:	Not determined.
Bioaccumulation	:	Not determined.
Mobility	:	Not determined.
Other adverse effects	:	Not determined.



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Atlas Minerals & Chemicals, Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 6 of 9

SAFETY DATA SHEET

SECTION 13. DISPOSAL CO	SECTION 13. DISPOSAL CONSIDERATIONS				
Handling for Disposal	Handle in accordance with good industrial hygiene and safety practice. Refer to protective measulisted in sections 7 and 8.	ures			
Methods of Disposal	Dispose in accordance with all applicable federal, state, provincial and local regulations.				
RCRA	If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unus waste material, check with local, state and federal environmental agencies.	ed or			

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	None	Not regulated	Not regulated	None	\bigotimes
49CFR/DOT Additional Information	None			-	-
TDG	None	Not regulated	Not regulated	None	\bigotimes
TDG Additional Information	None				
IMDG	None	Not regulated	Not regulated	None	\bigotimes
IMDG Additional Information	None		·		
ICAO/IATA	None	Not regulated	Not regulated	None	\bigotimes
ICAO/IATA Additional Information	None				

Special precautions for user	:	Appropriate advice on safety must accompany the package.
Environmental hazards	:	Contains material that may be harmful in the environment. See ECOLOGICAL INFORMATION,
		Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: This information is not available.

SECTION 15. REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal Chemical lists:



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Atlas Minerals & Chemicals, Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 7 of 9

SAFETY DATA SHEET

		TSCA	CERCLA Reportable	SARA TITLE III: Sec. 302,	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical		
<u>Ingredients</u>	ients CAS # INVentory Quantity(RQ) (40 CFR 117.302): CFR 355:		Toxic Chemical	de minimus Concentration			
Bisphenol A / epichlorohydrin resin	25068-38-6	Yes	N/Ap	N/Av	No	N/Ap	
Trimethylol propane triacrylate	15625-89-5	Yes	N/Ap	N/Av	No	N/Ap	
Amorphous Precipitated Silica	112945-52-5	NL	N/Ap	N/Av	No	N/Ap	
Titanium dioxide	13463-67-7	Yes	N/Ap	N/Av	No	N/Ap	
Crystalline silica	14808-60-7	Yes	None.	None.	No	N/Ap	
Zinc oxide	1314-13-2	Yes	N/Ap	N/Ap	No	N/Ap	

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS#	California	n 65 State "Right to Know" Lists						
ingreatents	0.0 #	Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Bisphenol A / epichlorohydrin resin	25068-38-6	No	N/Ap	No	No	No	No	No	No
Trimethylol propane triacrylate	15625-89-5	No	N/Ap	No	No	Yes	No	No	No
Amorphous Precipitated Silica	112945-52-5	No	N/Ap	No	No	No	No	No	No
Titanium dioxide	13463-67-7	Yes	, unbound particles	No	Yes	Yes	Yes	Yes	Yes
Crystalline silica	14808-60-7	Yes	orne particles of res	No	Yes	Yes	Yes	Yes	Yes
Zinc oxide	1314-13-2	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Information:

Canadian Environmental Protection Act (CEPA): All ingredients are present on the DSL.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this Safety Data Sheet contains all the information required by the CPR.

International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS#	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Bisphenol A / epichlorohydrin resin	25068-38-6	N/Av	Present	Present	(7)-1283	KE-24000	Present	HSR003180
Trimethylol propane triacrylate	15625-89-5	239-701-3	Present	Present	(2)-1010	KE-29547	Present	HSR003398
Amorphous Precipitated Silica	112945-52-5	231-545-4 (as Silicon dioxide)	Present	Present	(1)-548	KE-30953	Present	No information available.
Titanium dioxide	13463-67-7	236-675-5	Present	Present	(5)-5225; (1)-558	KE-33900	Present	May be used as a single component chemical under an appropriate group standard
Crystalline silica	14808-60-7	238-878-4	Present	Present	(1)-548	KE-29983	Present	HSR003125
Zinc oxide	1314-13-2	215-222-5	Present	Present	(1)-561	KE-35565	Present	HSR003104



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Page 8 of 9

SAFETY DATA SHEET

SECTION 16. OTHER INFORMATION

Legend	 ACGIH: American Conference of Governmental Industrial Hygienists AICS: Australian Inventory of Chemical Substances ATE: Acute Toxicity Estimate CA: California CAS: Chemical Abstract Services CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 CFR: Code of Federal Regulations CSA: Canadian Standards Association DOT: Department of Transportation CENEL: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 CFR: Code of Federal Regulations CSA: Canadian Standards Association DOT: Department of Transportation CENEL: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 CFR: Code of Federal Regulations CSA: Canadian Standards Association DOT: Department of Transportation CENEL: Service and Chemical Substances EINECS: European Inventory of Existing Commercial chemical Substances EINECS: European Inventory of Existing Chemical Substances ENCS: Existing and New Chemical Substances ENCS: Intermediate Bulk Container EICS: Intermational Maritime Dangerous Goods IOC: Inventory of Chemicals IUCLID: Intermational Maritime Dangerous Goods IOC: Inventory of Chemicals IUCLID: Intermational Uniform Chemical Information Database KECI: Korean Existing Chemicals Inventory KECL: Not Available NiXAP: Not Available NiXAP: Not Available NiCSH: National Institute of Occupational Safety and Health Ni. New Jersey NOCS: No observable effect concentration NTP: National Toxicology Program OECD: Organisation for Economic Co-operation and Development OSHA: Occupational Safety and Health Administration PA: Pennsylvania PEI: Permissible ex
References	 TWA: Time Weighted Average WHMIS: Workplace Hazardous Materials Identification System 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological
	 International Agency for Research on Cancer Monographs, searched 2015. International Agency for Research on Cancer Monographs, searched 2015. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2015 (Chempendium, HSDB and RTECs). Material Safety Data Sheets from manufacturer. US EPA Title III List of Lists - October 2012 version.

California Proposition 65 List - December 26, 2014 version



SDS Revision Date (mm/dd/yyyy): 03/14/2019

Page 9 of 9

SAFETY DATA SHEET

Preparation Date (mm/dd/yyyy): 05/02/2015 Reviewed Date SDS (dd/mm/yyyy): 03/14/2019

Revision No.: 2

Revision Information: All sections modified

Other special considerations for handling: Provide adequate information, instruction and training for operators.

Prepared by:

Atlas Minerals and Chemicals Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171



DISCLAIMER

Atlas Minerals & Chemicals, Inc. expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this Safety Data Sheet does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed or altered in any way without the expressed knowledge and permission of Atlas Minerals & Chemicals, Inc.

END OF DOCUMENT



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Page 1 of 12

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the I					
	EPOXYBOND® POOL PUTTY HARDENER				
Product Code(s)	Z530105, 530317, 530318				
Recommended use of the chem	nd restrictions on use				
Chemical family	Epoxy putty hardener Use pattern: Consumer use Recommended restrictions None known. Mixture				
Name, address, and telepho of the supplier: Atlas Minerals and Chemica	of the manufacturer:	er			
1227 Valley Road Mertztown, PA, USA 19539	- Refer to supplier				
Supplier's Telephone #	610-682-7171				
24 Hr. Emergency Tel #	Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.).				
SECTION 2. HAZARDS IDEN	SECTION 2. HAZARDS IDENTIFICATION				

Classification of the chemical

Solid, stiff putty. Ammonia odor.

Most important hazards: This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Hazard classification

Acute Toxicity, inhalation - Category 4 (mist) Eye Damage/Irritation - Category 2A Skin sensitization - Category 1 Reproductive Toxicity - Category 2

Label elements

Hazard pictogram(s)



WARNING! Hazard statement(s)



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Page 2 of 12

SAFETY DATA SHEET

Harmful if inhaled. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of damaging fertility.

Precautionary statement(s)

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust and fume. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/clothing and eye/face protection.

IF exposed or concerned: Get medical attention/advice. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local regulation.

Other hazards

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause respiratory tract irritation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	Common name and synonyms	CAS#	Concentration
Talc	Hydrous magnesium silicate; Non-asbestiform talc	14807-96-6	15.0 - 20.0
Silica	Crystalline quartz	14808-60-7	1.0 - 5.0
Diethylenetriamine	DETA	111-40-0	1.0 - 5.0
Bisphenol A	Epoxy Resin	80-05-7	1.0 - 5.0

The exact concentrations of the above listed chemicals are being withheld as a trade secret.



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Atlas Minerals and Chemicals Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 3 of 12

SAFETY DATA SHEET

SECTION 4. FIRST-AID MEAS	URES
Description of first aid measures	
Ingestion	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	: IF INHALED: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before re-use.
Eye contact	: For eye contact, flush with running water for at least 15 minutes. If eye irritation persists, get medical advice/attention.
Most important symptoms and eff	
	: May cause eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Harmful if inhaled. Symptoms may include coughing, choking and wheezing. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed. May cause an allergic skin reaction. May cause an allergic respiratory reaction (e.g. asthma) in some hypersensitive individuals. Suspected of damaging fertility.
Indication of any immediate medio	cal attention and special treatment needed
	: Treat symptomatically.
SECTION 5. FIRE-FIGHTING	MEASURES
Extinguishing media	
Suitable extinguishing media	
	: Carbon dioxide (CO2); Dry chemical; Alcohol-resistant foam; water fog .
Unsuitable extinguishing medi	
	: Do not use a solid water stream as it may scatter and spread fire.
<u> </u>	

Special hazards arising from the substance or mixture / Conditions of flammability

: Not considered flammable.

Flammability classification (OSHA 29 CFR 1910.106)

: Not flammable.

: Carbon dioxide and carbon monoxide.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

:	Firefighters should wear proper protective equipment and self-contained breathing
	apparatus with full face piece operated in positive pressure mode.

Special fire-fighting procedures

: Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Atlas Minerals and Chemicals Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 4 of 12

SAFETY DATA SHEET

Environmental precautions	 Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.
Methods and material for contai	nment and cleaning up
	: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Sweep up and shovel into suitable containers for disposal. Pick up and transfer to properly labelled containers. Contact the proper local authorities. Refer to Section 13 for disposal of contaminated material.
Special spill response procedur	es
	 Contact appropriate local and provincial environmental authorities for assistance and/or reporting requirements.
SECTION 7. HANDLING AND	DSTORAGE
Precautions for safe handling	
	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear suitable protective equipment during handling. Wear protective gloves/clothing and eye/face protection. Use only in well-ventilated areas. Avoid breathing dust and fume. Avoid contact with skin, eyes

	well-ventilated areas. Avoid breathing dust and fume. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Persons with recurrent skin eczema or sensitization problems should be excluded from working with this product. Once a person is sensitized, no further exposure to the material that caused the sensitization should be permitted. Contaminated work clothing must not be allowed out of the workplace.
Conditions for safe storage	: Store in cool/well ventilated area. Store locked up. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking.
Incompatiblematerials	· Oxidizing agents, mineral acids

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH	OSHA I		
	TWA	STEL	PEL	<u>STEL</u>
Talc	2 mg/m ³ (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	N/Av	N/Av	N/Av
Silica	0.025 mg/m³ (respirable fraction)	N/Av	0.1 mg/m³ (final rule limit)	N/Av
Diethylenetriamine	1 ppm	N/Av	N/Av	N/Av
Bisphenol A	N/Av	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Atlas Minerals and Chemicals Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 5 of 12

SAFETY DATA SHEET

	:	Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof equipment. In case of insufficient ventilation wear suitable respiratory equipment.
Respiratory protection	:	If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.
Skin protection	:	Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye / face protection	:	Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles
Other protective equipment	:	Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.
General hygiene considerations		
	:	Avoid breathing dust and fume. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothing home. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. P	PHYSICAL AND CHEMICAL PROPERTIES
--------------	----------------------------------

	_	
Appearance	:	Solid, stiff putty
Odor	:	Ammonia odor.
Odor threshold	:	No information available.
рН	:	No information available.
Melting/Freezing point	:	No information available.
Initial boiling point and boiling rar	nge)
	:	232°C (450°F)
Flash point	:	254°C (490°F)
Flashpoint (Method)	:	Cleveland closed cup
Evaporation rate (BuAe = 1)	:	No information available.
Flammability (solid, gas)	:	Not applicable.
Lower flammable limit (% by vol.)		
	:	Not applicable.
Upper flammable limit (% by vol.)		
	:	Not applicable.
Oxidizing properties	:	None known.
Explosive properties	:	Not explosive
Vapour pressure	:	Very low
Vapour density	:	(Air = 1) > 1
Relative density / Specific gravity		
	:	2.0
Solubility in water	:	Slightly soluble.
Other solubility(ies)	:	No information available.
Partition coefficient: n-octanol/wa	ter	or Coefficient of water/oil distribution
	:	No information available.
Auto-ignition temperature	:	No information available.
Decomposition temperature	:	No information available.
Viscosity	:	No information available.
Volatiles (% by weight)	:	none



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Page 6 of 12

SAFETY DATA SHEET

Volatile organic Compounds (VOC's)				
	: No information available.			
Absolute pressure of contain	er			
	: Not applicable.			
Flame projection length	: Not applicable.			
Other physical/chemical com	ments			
	: No additional information.			
SECTION 10. STABILITY A	NDREACTIVITY			
Reactivity	: Not normally reactive.			
Reactivity Chemical stability	Not normally reactive.Stable under normal conditions.			
-	: Stable under normal conditions.			
Chemical stability	: Stable under normal conditions.			
Chemical stability	: Stable under normal conditions.			
Chemical stability Possibility of hazardous reac	 Stable under normal conditions. ions Hazardous polymerization does not occur. Direct sources of heat. Do not use in areas without adequate ventilation. Avoid 			
Chemical stability Possibility of hazardous reac Conditions to avoid	 Stable under normal conditions. Hazardous polymerization does not occur. Direct sources of heat. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials. Oxidizing agents, mineral acids . 			

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation	:	YES	
Routes of entry skin & eye	:	YES	
Routes of entry Ingestion	:	YES	
Routes of exposure skin absorpt	tion		
	:	YES	

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms	Inhalation
-------------------	------------

Sign and symptoms ingestion	:	May cause respiratory irritation. Symptoms may include coughing and sneezing.
	:	Ingestion may cause severe irritation to the mouth, throat and stomach.
Sign and symptoms skin	:	May cause skin irritation. Symptoms may include redness, itching and swelling.
Sign and symptoms eyes	:	This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Eye Damage/Irritation - Category 2A Causes serious eye irritation.
Potential Chronic Health Effects		Man anna dan an ta tha lunga thur ch gula and an una atal anna 16 inhalad
Mutagenicity	:	May cause damage to the lungs through prolonged or repeated exposure if inhaled. Not expected to be mutagenic in humans.



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Atlas Minerals and Chemicals Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 7 of 12

SAFETY DATA SHEET

Carcinogenicity	This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Contains crystalline silica. Crystalline silica is classified as carcinogenic by IARC (Group 1), the ACGIH (Category A2) and the NTP (Group 1 - Known human carcinogen). However, Crystalline silica is listed as causing cancer only when it's particles are airborne and of a respirable size. Airborne respirable particles are not expected for this product, based on the intended use and form of the product as a whole.
Reproductive effects & Teratoge	nicity
	 This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Reproductive Toxicity - Category 2 Suspected of damaging fertility.
Sensitization to material	 This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Skin sensitization - Category 1 May cause allergic skin reaction. May cause an allergic respiratory reaction (e.g. asthma) in some hypersensitive individuals.
Specific target organ effects	 The substance or mixture is not classified as specific target organ toxicant, single exposure. The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Medical conditions aggravated b	
	: Pre-existing skin, eye, respiratory and central nervous system disorders.
Synergistic materials	: No information available.
Toxicological data	 The calculated ATE values for this mixture are: ATE dermal = 27949.24 ATE inhalation (dust/mist) = 3.18 ATE oral =18516.21 Acute Toxicity, inhalation - Category 4 (mist)

See the following table for individual ingredient acute toxicity data.

	LC₅₀(4hr)	LD50		
Chemical name	inh, rat	(Oral, rat)	(Rabbit, dermal)	
Talc	N/Av	N/Av	N/Av	
Silica	N/Av	N/Av	N/Av	
Diethylenetriamine	0.07mg/L	1080 mg/kg	678mg/kg	
Bisphenol A	>0.113mg/L (no deaths)	3300 mg/kg	3600mg/kg	

Other important toxicological hazards

: None reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

: Contains material that may be harmful in the environment. Do not release, unmonitored, into the environment.



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Page 8 of 12

SAFETY DATA SHEET

Ecotoxicity data:

la ann d'an ta		Toxicity to Fish					
Ingredients	CAS No	LC50 / 96h	NOEC / 21 day	M Factor			
Talc	14807-96-6	>100mg/L (Zebra fish)	N/Av	None.			
Silica	14808-60-7	N/Av	N/Av	N/Av			
Diethylenetriamine	111-40-0	0.43mg/L (Guppy)	>10mg/L (Three-spined stickleback)	None.			
Bisphenol A	80-05-7	4.6mg/L (Fathead minnow)	N/Av	None.			

Ingredients	CAS No	Toxicity to Daphnia				
		EC50 / 48h	NOEC / 21 day	M Factor		
Talc	14807-96-6	N/Av	N/Av	None.		
Silica	14808-60-7	N/Av	N/Av	N/Av		
Diethylenetriamine	111-40-0	2mg/L (Water flea)	5.6mg/L (Water flea)	None.		
Bisphenol A	80-05-7	10.2mg/L (Water flea)	>3.146mg/L (Water flea)	None.		

Ingredients	CAS No	Toxicity to Algae				
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor		
Talc	14807-96-6	N/Av	N/Av	None.		
Silica	14808-60-7	N/Av	N/Av	N/Av		
Diethylenetriamine	111-40-0	187mg/L (Green algae)	10mg/L (Green algae)	None.		
Bisphenol A	80-05-7	2.73mg/L (Green algae)	N/Av	None.		

Persistence and degradability

: No data is available on the product itself.

Bioaccumulation potential : No data is available on the product itself.

	<u>Components</u>	Partition coefficent n-octanol/ater (log Kow)	Bioconcentration factor (BCF)
	Talc (CAS 14807-96-6)		no known bioaccumulation
	Diethylenetriamine (CAS 111-40-0)	-1.58	> 2.8 <= 6.3
	Bisphenol A (CAS 80-05-7)	3.4	5.1-13.3
Ν	lobility in soil	: The product itself has not been tested.	

Other Adverse Environmental effects

: None known.

SECTION 13. DISPOSAL CONSIDERATIONS



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Atlas Minerals and Chemicals Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 9 of 12

SAFETY DATA SHEET

Handling for Disposal	:	Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.
Methods of Disposal	:	Dispose in accordance with all applicable federal, state, provincial and local regulations.
RCRA	:	If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

Regulatory nformation	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	None.	Not regulated.	not regulated	none	\oslash
49CFR/DOT Additional information					
TDG	None.	Not regulated.	not regulated	none	\oslash
TDG Additional information					<u> </u>
IMDG	None.	Not regulated.	not regulated	none	\oslash
IMDG Additional information					
ICAO/IATA	None.	Not regulated.	not regulated	none	\oslash
ICAO/IATA Additional information					

Special precautions for user : Appropriate advice on safety must accompany the package.

Environmental hazards

See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

:

: This information is not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Page 10 of 12

<u>Ingredients</u>		TSCA	CERCLA	SARA TITLE III: Sec. 302, Extremely	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical		
	CAS #	Inventory Reportable Quantity(RQ) (40 CFR 117.302):		Hazardous Substance, 40 CFR 355:	Toxic Chemical	de minimus Concentration	
Talc	14807-96-6	Yes	N/Ap	N/Av	No	N/Ap	
Silica	14808-60-7	Yes	N/Ap	N/Av	No	N/Ap	
Diethylenetriamine	111-40-0	Yes	N/Ap	N/Av	No	N/Ap	
Bisphenol A	80-05-7	Yes	N/Ap	N/Av	Yes	1%	

SAFETY DATA SHEET

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California Proposition 65		State "Right to Know" Lists					
	010#	Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Talc	14807-96-6	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Silica	14808-60-7	Yes	airborne particles of	No	Yes	Yes	Yes	Yes	Yes
Diethylenetriamine	111-40-0	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes
Bisphenol A	80-05-7	No	N/Ap	No	Yes	No	Yes	Yes	No

Canadian Information:

Canadian Environmental Protection Act (CEPA): . All ingredients are present on the DSL.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Talc	14807-96-6	238-877-9	Present	Present	(1)-468; (1)-468	KE-32773	Present	No information available.
Silica	14808-60-7	238-878-4	Present	Present	(1)-548	KE-29983	Present	HSR003125
Diethylenetriamine	111-40-0	203-865-4	Present	Present	(2)-159	KE-10470	Present	HSR002966
Bisphenol A	80-05-7	201-245-8	Present	Present	(4)-123	KE-23982	Present	HSR003399

SECTION 16. OTHER INFORMATION

: ACGIH: American Conference of Governmental Industrial Hygienists AICS: Australian Inventory of Chemical Substances ATE: Acute Toxicity Estimate



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Atlas Minerals and Chemicals Inc. 1227 Valley Road Mertztown, PA 19539 610-682-7171

Page 11 of 12

SAFETY DATA SHEET

CA: California CAS: Chemical Abstract Services CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 CFR: Code of Federal Regulations CSA: Canadian Standards Association DOT: Department of Transportation ECHA: European Chemicals Agency ECOTOX: U.S. EPA Ecotoxicology Database EINECS: European Inventory of Existing Commercial chemical Substances ENCS: Existing and New Chemical Substances EPA: Environmental Protection Agency HSDB: Hazardous Substances Data Bank IARC: International Agency for Research on Cancer IBC: Intermediate Bulk Container IECSC: Inventory of Existing Chemical Substances IMDG: International Maritime Dangerous Goods IOC: Inventory of Chemicals IUCLID: International Uniform Chemical Information Database KECI: Korean Existing Chemicals Inventory KECL: Korean Existing Chemicals List LC: Lethal Concentration LD: Lethal Dose MA: Massachusetts MN: Minnesota N/Ap: Not Applicable N/Av: Not Available NIOSH: National Institute of Occupational Safety and Health NJ: New Jersey NOEC: No observable effect concentration NTP: National Toxicology Program OECD: Organisation for Economic Co-operation and Development OSHA: Occupational Safety and Health Administration PA: Pennsylvania PEL: Permissible exposure limit PICCS: Philippine Inventory of Chemicals and Chemical Substances RCRA: Resource Conservation and Recovery Act RI: Rhode Island RTECS: Registry of Toxic Effects of Chemical Substances SARA: Superfund Amendments and Reauthorization Act SDS: Safety Data Sheet / Material Safety Data Sheet STEL: Short Term Exposure Limit TDG: Canadian Transportation of Dangerous Goods Act & Regulations TLV: Threshold Limit Values TSCA: Toxic Substance Control Act TWA: Time Weighted Average WHMIS: Workplace Hazardous Materials Identification System 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & : Biological Exposure Indices for 2014. 2. International Agency for Research on Cancer Monographs, searched 2015. 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2015 (Chempendium, HSDB and RTECs). 4. Material Safety Data Sheets from manufacturer. 5. US EPA Title III List of Lists - October 2012 version. 6. California Proposition 65 List - December 26, 2014 version

References



SDS Preparation Date (mm/dd/yyyy): 04/26/2015

Page 12 of 12

SAFETY DATA SHEET

Preparation Date (mm/dd/yyyy)

: 04/26/2015

Other special considerations for handling

: Provide adequate information, instruction and training for operators.



DISCLAIMER

This Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Atlas Minerals and Chemicals Inc. and CCOHS' Web Information Service. The information in the Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Atlas Minerals and Chemicals Inc.

expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this Safety Data Sheet does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Atlas Minerals and Chemicals Inc.

END OF DOCUMENT