

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier	
Product Name	 HPA Garnet Abrasive Grains and Powders
Synonyms	 Almandine and Pyrope Garnet
1.2 Relevant identified us	ses of the substance or mixture and uses advised against
Relevant identified use(s)	 Industrial Abrasives
1.3 Details of the supplier	r of the safety data sheet
Manufacturer	Barton International
	Six Warren Street Glens Falls, NY 12801 United States www.barton.com info@barton.com
Telephone (Genera	al) • (800) 741 7756
Telephone (Genera	al) • 518-798-5462
1.4 Emergency telephone	e number
Manufacturer	• (518) 798 5462

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Not classified

• Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

DSD/DPD

Risk phrases • No label element(s) required

2.3 Other Hazards

CLP	• According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.
DSD/DPD	According to European Directive 1999/45/EC this material is not considered dangerous.

United States (US) According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012 2.2 Label elements OSHA HCS 2012

• Carcinogenicity 1A - H350

DANGER



Hazard statements •	May cause cancer H350
Precautionary statements	
Prevention •	Obtain special instructions before use P201 Do not handle until all safety precautions have been read and understood P202 Wear protective gloves/protective clothing/eye protection/face protection P280
Response •	IF exposed or concerned: Get medical advice/attention P308+P313
Storage/Disposal •	Store locked up P405 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations P501
2.3 Other hazards	
OSHA HCS 2012 •	Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS • Other Toxic Effects - D2A

2.2 Label elements

WHMIS



• Other Toxic Effects - D2A

2.3 Other hazards

WHMIS • In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

• Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

	Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Almandine-Ferric Aluminum Silicate	CAS:1302-62-1	94% TO 99.6%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Quartz	CAS:14808-60- 7 EC Number:238- 878-4	< 0.65%	NDA	EU DSD/DPD: Self Classified: T; R48/20 EU CLP: Self Classified: STOT RE 1, H372 OSHA HCS 2012: Carc. 1A; STOT RE 1 (Lungs, Inhl)	NDA
Iron	CAS :7439-89-6 EC Number :231- 096-4	0.01% TO 0.2%	Ingestion/Oral-Rat LD50 • 750 mg/kg	EU DSD/DPD: Self Classified: Xn R22 Xi, R37 Xn R48/20 EU CLP: Self Classified: STOT SE 3: Resp. Irrit., H335; STOT RE 2 (Lungs, Liver), H373; Acute Tox. 4 (oral), H302 OSHA HCS 2012: STOT SE 3: Resp. Irrit.; STOT RE 2 (Lungs, Liver); Acute Tox 4 (oral)	NDA
Hornblende	CAS: 12178-42- 6	0.01% TO 0.2%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA
Feldspars	CAS:68476-25- 5 EC Number:270- 666-7	0.01% TO 0.2%	NDA	EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Not Classified	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention immediately.
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water.
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

• Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

All treatments should be based on observed signs and symptoms of distress in the patient.
 Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

Unsuitable Extinguishing Media

- In case of fire use media as appropriate for surrounding fire.
- No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • None

Hazardous Combustion Products • No data available.

5.3 Advice for firefighters

• Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions
 Do not walk through spilled material. Wear appropriate Personal Protective Equipment (PPE)
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.

6.2 Environmental precautions

• Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up• Avoid generating dust.MeasuresSweep or vacuum up material for disposal or recovery.

6.4 Reference to other sections

• Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling • No special precautions necessary for normal handling of the material. Use only with adequate ventilation. Do not breathe dust. Wear appropriate personal protective equipment, avoid direct contact.

7.2 Conditions for safe storage, including any incompatibilities

Storage • No special precautions necessary for normal storage of the material. Keep container/package tightly closed and in a well-ventilated place. Store locked up.

7.3 Specific end use(s)

• Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

	Exposure Limits/Guidelines					
	Result	ACGIH	Argentina	Austria	Belgium	Chile
	TWAs	0.025 mg/m3 TWA (respirable fraction)	0.05 mg/m3 TWA [CMP] (respirable fraction)	Not established	0.1 mg/m3 TWA (alveolar dust)	0.08 mg/m3 TWA LPP (respirable fraction)
Quartz (14808-60-7)	MAKs	Not established	Not established	0.15 mg/m3 TWA [TMW] (yearly average, valid till 12/31/2013, alveolar dust, respirable fraction)	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	China	Czech Republic	Denmark	Finland	France

			•	•		
Quartz (14808-60-7)	STELs	2 mg/m3 STEL (10%-50% free SiO2, total dust); 1.4 mg/m3 STEL (50%- 80% free SiO2, total dust); 1 mg/m3 STEL (containing >80% free SiO2, total dust); 1.4 mg/m3 STEL (10%-50% free SiO2, respirable dust); 0.6 mg/m3 STEL (50%- 80% free SiO2, respirable dust); 0.4 mg/m3 STEL (containing >80% free SiO2, respirable dust)		Not established	Not established	Not established
	TWAs	0.7 mg/m3 TWA (containing 50-80% free SiO2, total dust); 0.3 mg/m3 TWA (containing 50-80% free SiO2, respirable dust); 1 mg/m3 TWA (containing 10-50% free SiO2, total dust); 0.7 mg/m3 TWA (containing 10-50% free SiO2, respirable dust); 0.5 mg/m3 TWA (containing >80% free SiO2, total dust); 0.2 mg/m3 TWA (containing >80% free SiO2, respirable dust)	0.1 mg/m3 TWA (dust)	0.3 mg/m3 TWA (total); 0.1 mg/m3 TWA (respirable)	0.05 mg/m3 TWA (respirable, listed under Silicon dioxide, crystalline)	0.1 mg/m3 TWA [VME] (restrictive limit, alveolar fraction)
	1		xposure Limits/Gu		1	1
1	Result	Indonesia	Korea	Mexico	Netherlands	New Zealand
Iron (7439-89-6)	TWAs	1 mg/m3 TWA	Not established	Not established	Not established	Not established
Quartz (14808-60-7)	TWAs	0.1 mg/m3 TWA (respirable particulate)	0.05 mg/m3 TWA (respirable fraction, Serial No. 251)	0.1 mg/m3 TWA LMPE-PPT (respirable fraction)	0.075 mg/m3 TWA (respirable dust, listed under Silicium dioxide)	0.2 mg/m3 TWA (respirable dust)
	-		xposure Limits/Gu	idelines (Con't.)		
	Result	NIOSH	Norway	Poland	Russia	Slovak Republic
Iron (7439-89-6)	TWAs	Not established	Not established	Not established	10 mg/m3 TWA (aerosol)	6.0 mg/m3 TWA (total aerosol)
Quartz (14808-60-7)	TWAs	0.05 mg/m3 TWA (respirable dust)	0.3 mg/m3 TWA (Dust containing .alphaQuartz, Cristobalite and/or Tridymite is evaluated by summation formula, total dust); 0.1 mg/m3 TWA (Dust containing .alpha Quartz, Cristobalite and/or Tridymite is evaluated by summation formula, respirable dust)	2 mg/m3 TWA [NDS] (>50% free crystalline silica, total inhalable dust); 0.3 mg/m3 TWA [NDS] (>50% free crystalline silica, respirable dust); 4.0 mg/m3 TWA [NDS] (2% to 50% free crystalline silica, total inhalable dust); 1.0 mg/m3 TWA [NDS] (2% to 50% free crystalline silica, respirable dust)	1 mg/m3 TWA (disintegration aerosol, listed under Silicon dioxide amorphous and vitreous)	0.1 mg/m3 TWA (in Cristobalite or Tridymite, total aerosol) 0.1 mg/m3 TWA

	STELs	Not established	Not established	Not established	3 mg/m3 STEL (disintegration aerosol, listed under Amorphous and crystalline silicon dioxide)	0.5 mg/m3 STEL
		E	kposure Limits/Gu	idelines (Con't.)		
	Result	Spain	Sweden	Switzerland	United Kingdom	Venezuela
	MAKs	Not established	Not established	0.15 mg/m3 TWA [MAK] (respirable)	Not established	Not established
Quartz (14808-60-7)	STELs	Not established	Not established	Not established	0.3 mg/m3 STEL (calculated, respirable)	Not established
	TWAs	0.1 mg/m3 TWA [VLA-ED] (reclassified IARC group 2A to group 1, respirable fraction)	0.1 mg/m3 LLV (respirable dust)	INOT ASTADIISDAD	0.1 mg/m3 TWA (respirable)	0.05 mg/m3 TWA [CAP

Exposure Control Notations

Switzerland

•Quartz (14808-60-7): Carcinogens: (Category C1 carcinogen) | Developmental Risk Groups: (Developmental Risk Group C (listed under Silicon dioxide, crystalline))

Norway

•Quartz (14808-60-7): Carcinogens: (Carcinogen)

Argentina

•Quartz (14808-60-7): Carcinogens: (A2 - Suspected human carcinogen)

Venezuela

•Quartz (14808-60-7): Ceilings: (A2 - Alleged Carcinogen in Humans)

Germany DFG

•Quartz (14808-60-7): Carcinogens: (Category 1 (causes cancer in man, alveola fraction))

Exposure Limits Supplemental

Spain

MAK

•Quartz (14808-60-7): Under Review: (0.05 mg/m3 VLA-ED; reclassified by IARC from group 2A possible human carcinogen to group 1 human carcinogen; (respirable fraction))

8.2 Exposure controls

Engineering	• Good general ventilation should be used. Ventilation rates should be matched to conditions.
Measures/Controls	If applicable, use process enclosures, local exhaust ventilation, or other engineering controls
	to maintain airborne levels below recommended exposure limits. If exposure limits have not
	been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory	 For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced. 				
Eye/Face	 Wear safety glasses. 				
Skin/Body	Wear protective clothing a	nd gloves.			
 Controls should be engineered to prevent release to the environment, including pro to prevent spills, atmospheric release and release to waterways. Follow best practic management and disposal of waste. 					
Key to abbreviations					
ACGIH = American Conferenc Hygiene		PEL = Permissible Exposure Level determined by the Occupational Safety and Health Administration (OSHA)			
LLV = Limit Level Value is the exposure limit for 8-hour work day		STEL = Short Term Exposure Limits are based on 15-minute exposures			

Maximale Arbeitsplatz Konzentration is the maximum STEV = Short Term Exposure Value

MAC = Maximum Allowable Concentration

NIOSH = National Institute of Occupational Safety and Health OSHA = Occupational Safety and Health Administration TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Reddish brown to pink grains with no odor.
Color	Reddish brown to pink.	Odor	Odorless
Particulate Size	Varies upon customer demand	Odor Threshold	Data lacking
General Properties			
Boiling Point	Data lacking	Melting Point	1315 C(2399 F)
Decomposition Temperature	> 750 C(> 1382 F)	рН	Not relevant
Specific Gravity/Relative Density	4.1 Water=1	Bulk Density	2.4 g/cm ³
Water Solubility	Insoluble	Viscosity	Data lacking
Explosive Properties	Non-explosive	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant	VOC (Wt.)	Not relevant
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Data lacking
Flammability (solid, gas)	Non-flammable		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

• No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

• No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

• Hazardous polymerization will not occur.

10.4 Conditions to avoid

• No data available.

10.5 Incompatible materials

• None known.

10.6 Hazardous decomposition products

• None known.

11.1 Information on toxicological effects

	Components				
Iron (0.01% TO 0.2%)	7439- 89-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 750 mg/kg; <i>Blood</i> : Changes in serum composition (e.g., TP, bilirubin cholesterol) ; <i>Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels</i> : Transaminases			
Quartz (< 0.65%)	14808- 60-7	Acute Toxicity: Inhalation-Human TCLo • 16 mppcf 8 Hour(s) 17.9 Year(s)-Intermittent; <i>Lungs, Thorax, or</i> <i>Respiration</i> :Fibrosis, focal (pneumoconiosis); <i>Lungs, Thorax, or Respiration</i> :Cough; <i>Lungs, Thorax, or</i> <i>Respiration</i> :Dyspnea; Inhalation-Rat TCLo • 200 mg/kg; <i>Lungs, Thorax, or Respiration</i> :Fibrosis, focal (pneumoconiosis); <i>Lungs, Thorax, or Respiration</i> :Other changes; <i>Nutritional and Gross Metabolic</i> :Changes in <i>Chemistry or Temperature</i> :Fe; Multi-dose Toxicity: Inhalation-Hamster TCLo • 3 mg/m ³ 6 Hour(s) 78 Week(s)-Intermittent; <i>Lungs, Thorax, or</i> <i>Respiration</i> :Fibrosis (interstitial); <i>Lungs, Thorax, or Respiration</i> :Changes in lung weight; Inhalation-Rat TCLo • 6.2 mg/m ³ 6 Hour(s) 6 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i> :Other changes; <i>Blood</i> :Changes in spleen; <i>Immunological Including Allergic</i> :Increase in cellular immune response; Inhalation-Rat TCLo • 80 mg/m ³ 26 Week(s)- Intermittent; <i>Lungs, Thorax, or Respiration</i> :Fibrosis, focal (pneumoconiosis); <i>Blood</i> :Changes in spleen; <i>Immunological Including Allergic</i> :Decrease in cellular immune response; Tumorigen / Carcinogen: Inhalation-Rat TCLo • 50 mg/m ³ 6 Hour(s) 71 Week(s)-Intermittent; <i>Tumorigenic</i> :Carcinogenic by RTECS criteria; <i>Liver</i> :Tumors			

GHS Properties	Classification
Acute toxicity	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Aspiration Hazard	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Carcinogenicity	EU/CLP•Data lacking OSHA HCS 2012•Carcinogenicity 1A
Germ Cell Mutagenicity	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Skin corrosion/Irritation	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Skin sensitization	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
STOT-RE	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
STOT-SE	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Toxicity for Reproduction	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Respiratory sensitization	EU/CLP•Data lacking OSHA HCS 2012•Data lacking
Serious eye damage/Irritation	EU/CLP•Data lacking OSHA HCS 2012•Data lacking

Potential Health Effects

Inhalation

Acute	 Exposure to dust may cause irritation.
(Immediate)	
Chronic	• Inhalation of respirable dusts containing crystalline silica may cause lung injury or disease including
(Delayed)	silicosis and/or cancer.

Skin	
Acute (Immediate)	May cause abrasions.
Chronic (Delayed)	No data available
Eye	
Acute (Immediate)	Exposure to dust may cause irritation.
Chronic (Delayed)	No data available
Ingestion	
Acute (Immediate)	 No known eff ects, however ingestion not recommended.
Chronic (Delayed)	No data available
Carcinogenic Effects	 May cause cancer. This product contains crystalline silica as cristobalite and/or quartz. IARC Monographs on Evaluation of Carcinogenic Risk of Chemicals to Humans (Monograph 68, 1997) concludes that there is sufficient evidence for the carcinogenicity of crystalline silica to humans (IARC Group I). Crystalline Silica is classified as a Known Carcinogen according to NTP.
	Carcinogenic Effects

Carcinogenic Effects					
	CAS	IARC	NTP		
Quartz	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen		

Key to abbreviations

LD = Lethal Dose

Section 12 - Ecological Information

12.1 Toxicity

• Material data lacking.

12.2 Persistence and degradability

• Material data lacking.

12.3 Bioaccumulative potential

• Material data lacking.

12.4 Mobility in Soil

• Material data lacking.

12.5 Results of PBT and vPvB assessment

• No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

• No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

TC = Toxic Concentration

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

• None specified.

Chronic

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

				Invento	ory				
Component	CAS	Canada	DSL	Canada NDSL		China	EU EIN	IECS	EU ELNICS
Almandine-Ferric Aluminum Silicate	1302-62	-1 No		No	N	0	No		No
Feldspars	68476-2 5	⁵⁻ No		Yes	Ye	es	Yes		No
Hornblende	12178-4 6	²⁻ No		No	N	0	No		No
Iron	7439-89	-6 Yes		No	Ye	es	Yes		No
Quartz	14808-6 7	⁰⁻ Yes		No	Ye	es	Yes		No
	•			Inventory (Con'	't.)			
Componer	ıt	CAS		Korea KECL		New Zeala	and		TSCA*
Almandine-Ferric A Silicate	luminum	1302-62-1	No			Yes		No	
Feldspars		68476-25-5	Yes			Yes		Yes	
Hornblende	12178-42-6 No No			No					
Iron		7439-89-6	Yes			Yes		Yes	
Quartz		14808-60-7	Yes			Yes		Yes	

Note: Almandine-Ferric Aluminum Silicate (Garnet) and minor constituents are a naturally occurring minerals and therefore are exempted from TSCA regulations in accordance with 710.4(b)(1).

Belgium

Labo	٢
D .	

Belgium - Substances and Preparations - Carcinogens and Mutagens		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Belgium - Substances and Preparations - Suspected Carcinogens and Mutagens		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed

•Almandine-Ferric Aluminum Silicate •Quartz

•Hornblende

Canada

Labor

Canada - WHMIS - Classifications of Substances

Canada - WHIMIS - Classifications of Substances		
•lron	7439-89-6	Uncontrolled product according to WHMIS
		classification criteria
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
		D2A (In certain cases, this
		classification does not apply.
		For more information,
	4 4000 00 7	consult the section
•Quartz	14808-60-7	Substance Specific Issues - Silica, crystalline,
		encapsulated on Health
		Canada's WHMIS Division
		website.)
•Hornblende	12178-42-6	Not Listed
Canada - WHMIS - Ingredient Disclosure List		
•iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	1 %
•Hornblende	12178-42-6	Not Listed
Environment		
Canada - CEPA - Priority Substances List		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Ohina		
China		
Environment		
Environment China - Ozone Depleting Substances - First Schedule	- 100 00 0	
Environment China - Ozone Depleting Substances - First Schedule •Iron	7439-89-6	Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars	68476-25-5	Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate	68476-25-5 1302-62-1	Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz	68476-25-5 1302-62-1 14808-60-7	Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende	68476-25-5 1302-62-1	Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule elron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule	68476-25-5 1302-62-1 14808-60-7 12178-42-6	Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6	Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5	Not Listed Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Third Schedule •Iron	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Third Schedule	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Third Schedule •Iron •Feldspars	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5	Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Third Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz Hornblende China - Ozone Depleting Substances - Third Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz Hornblende	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	Not Listed Not Listed
 Environment China - Ozone Depleting Substances - First Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende China - Ozone Depleting Substances - Second Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende China - Ozone Depleting Substances - Third Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende China - Ozone Depleting Substances - Third Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Thon Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz Hornblende China - Ozone Depleting Substances - Third Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz Hornblende	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6	Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende China - Ozone Depleting Substances - Second Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende China - Ozone Depleting Substances - Third Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende China - Ozone Depleting Substances - Third Schedule Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende China - Annex I & II - Controlled Chemicals Lists Iron	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	Not Listed Not Listed
Environment China - Ozone Depleting Substances - First Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Second Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende China - Ozone Depleting Substances - Third Schedule •Iron •Feldspars •Almandine-Ferric Aluminum Silicate •Quartz Hornblende China - Manes I & II - Controlled Chemicals Lists	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6	Not Listed Not Listed

•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
China - Catalog of Hypertoxic Chemicals		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
China - Dangerous Goods List		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
China - Export Control List - Part I Chemicals		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Denmark		
Definidik		
Environment		
Denmark - Advisory List for Self-Classification of Dangerous Substances		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Denmark - List of Undesirable Substances - Product Groups/Function		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Denmark - List of Undesirable Substances - Reason for Selection		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Europo		
Europe		

Environment

EU - Air Pollution (2001/379/EC) - Heavy Metal Pollutants		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Substances Depleting the Ozone layer (1005/2009) - Annex I Substances		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed

Other

EU - Export and Import Restrictions (689/2008) - Chemicals and Articles Subject to Export Ban•Iron7439-89-6Not Listed•Feldspars68476-25-5Not Listed

 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Export and Import Restrictions (689/2008) - Chemicals Qualifying for PIC No	otification	
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
EU - Water Framework Directive (2000/60/EC) - List of Priority Substances - Anne		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany		
Labor		
Germany - Immission Control - Qualifying Quantities for Major Accident Prevent		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - Immission Control - Qualifying Quantities for Safety Reporting		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - TRGS 505 - Specific Lead Regulations		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - TRGS 511 - Specific Ammonium Nitrate Regulations		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Environment		
Germany - TA Luft - Types and Classes		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - TA Luft - Emission Limits for Carcinogenic Substances		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - TA Luft - Emission Limits for Fibers		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed

•Hornblende	12178-42-6	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Dusts		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
	12170-42-0	Not Listed
Germany - TA Luft - Emission Limits for Inorganic Gases •Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - TA Luft - Emission Limits for Organic Substances		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
		ID Number 748, not
•lron	7439-89-6	considered hazardous to
	1 100 00 0	water
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
Windhand Ferrie Wannham Gineale	1002 02 1	ID Number 849, not
•Quartz	14808-60-7	considered hazardous to
-Qualiz	14000-00-7	water
•Hornblende	12178-42-6	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes	12170-42-0	Not Listed
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - Water Classification (VwVwS) - Annex 3		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
		ID Number 849, not
•Quartz	14808-60-7	considered hazardous to
		water
•Hornblende	12178-42-6	Not Listed
Other		
Other		
Germany - Specifically Regulated Chemicals in TRGS	7400.00.0	NL CLEAR L
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Germany - GUT - Substances Banned from Carpeting		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
	12170 720	
Greece		
Labor		
Greece - Substances Prohibited from Use in the Workplace		
•lron	7439-89-6	Not Listed

•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Environment		
Greece - Air Quality Guidelines - 1 Hour		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Greece - Air Quality Guidelines - 24 Hour		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
Greece - Air Quality Guidelines - Annual	12110 42 0	Not Elotod
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
Greece - Surface Water Quality Standards	7400.00.0	NL (L S. ()
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Daily		
		15.0 mg/L ELV (total, lakes);
•iron	7439-89-6	15.0 mg/L ELV (total, rivers);
•lron	7439-89-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal
		15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters)
•Feldspars	68476-25-5	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed
		15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters)
•Feldspars	68476-25-5	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende	68476-25-5 1302-62-1	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz	68476-25-5 1302-62-1 14808-60-7	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende	68476-25-5 1302-62-1 14808-60-7	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes);
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly	68476-25-5 1302-62-1 14808-60-7 12178-42-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers);
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende	68476-25-5 1302-62-1 14808-60-7	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly •Iron	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters)
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly •Iron •Feldspars	68476-25-5 1302-62-1 14808-60-7 12178-42-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly •Iron	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters)
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly •Iron •Feldspars	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6	 15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Major Accidents - Threshold Quantities for Safety Reporting Iron Feldspars Almandine-Ferric Aluminum Silicate 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Water Quality - Industrial Emission Limit Values (ELVs) - Monthly Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Other Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Major Accidents - Threshold Quantities for Accident Prevention Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Greece - Major Accidents - Threshold Quantities for Safety Reporting Iron Feldspars Almandine-Ferric Aluminum Silicate Quartz 	68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6 7439-89-6 68476-25-5 1302-62-1 14808-60-7 12178-42-6	15.0 mg/L ELV (total, rivers); 20.0 mg/L ELV (total, coastal waters) Not Listed Not Listed Not Listed 7.5 mg/L ELV (total, lakes); 7.5 mg/L ELV (total, rivers); 10.0 mg/L ELV (total, coastal waters) Not Listed Not Listed

•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Indonesia		
Environment		
Indonesia - Hazardous Waste from Non-Specific Sources	7420 90 6	Not Listed
•Iron •Feldspars	7439-89-6 68476-25-5	
•Almandine-Ferric Aluminum Silicate •Ouartz	1302-62-1 14808-60-7	Not Listed Not Listed
•Hornblende		Not Listed
Indonesia - Hazardous Waste from Specific Sources	12178-42-6	NOT LISTED
•lron	7439-89-6	Not Listed
	68476-25-5	Not Listed
•Feldspars		
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
Indonesia - Hazardous Waste from Overdue Chemicals	7420 90 6	Not Listed
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
Japan		
Labor		
Japan - ISHL Dangerous Substances		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Japan - ISHL Designated Carcinogens		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Other		
Japan - Drinking Water Quality Standards - Supplied Water Quality Standard Value	es	0.0 mg/l (listed under Iron
•Iron	7439-89-6	0.3 mg/L (listed under Iron and its compounds)
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Japan - Drinking Water Quality Standards - Quality Control Guideline Values		
•lron	7439-89-6	Not Listed
	68476-25-5	Not Listed
•Feldspars	00110 20 0	
	1302-62-1	Not Listed
•Feldspars		Not Listed Not Listed
•Feldspars •Almandine-Ferric Aluminum Silicate	1302-62-1	
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz	1302-62-1 14808-60-7	Not Listed
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Japan - Fire Service Law - Hazardous Materials 	1302-62-1 14808-60-7 12178-42-6	Not Listed Not Listed Group 2 - Flammable solids
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende	1302-62-1 14808-60-7	Not Listed Not Listed Group 2 - Flammable solids III (powder, listed under Iron
•Feldspars •Almandine-Ferric Aluminum Silicate •Quartz •Hornblende Japan - Fire Service Law - Hazardous Materials •Iron	1302-62-1 14808-60-7 12178-42-6 7439-89-6	Not Listed Not Listed Group 2 - Flammable solids III (powder, listed under Iron powder)
 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende Japan - Fire Service Law - Hazardous Materials 	1302-62-1 14808-60-7 12178-42-6	Not Listed Not Listed Group 2 - Flammable solids III (powder, listed under Iron

•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed

Korea

Labor	

Labor		
Korea - ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Trans		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
Korea - ISHA - Harmful Substances Requiring Permission		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Korea - ISHA - Name, Toxicity and Protective Measures of New Chemical Substance	ces	
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	
Environment		
Korea - MOE - Toxic Chemicals Control Act (TCCA) - Observational Chemicals		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Other		
Korea - MOE - Toxic Chemicals Control Act (TCCA) - Prohibited Chemicals		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Korea - MOE - Toxic Chemicals Control Act (TCCA) - Restricted Chemicals	12170-42-0	NOT LISTED
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	NOT LISTED
Korea - MOE - Toxic Chemicals Control Act (TCCA) - Toxic Chemicals	7439-89-6	Not Listed
•Iron		
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Mexico		
Environment		
Mexico - Ecological Criteria for Water Quality - Agricultural Irrigation		
•lron	7439-89-6	5.0 mg/L
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Mexico - Ecological Criteria for Water Quality - Drinking Water Supply Source		
•lron	7439-89-6	0.3 mg/L

• • • • • • • • • • • • • • • • • • •			
	•Feldspars	68476-25-5	Not Listed
• • • • • • • • • • • • • • • • • • •	 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
Mixto - Ecological Criteria for Water Quality - Protection of Fresh Water Aqualit Life 7439-884 1.0 mg/l. **for Additional Criteria for Water Quality - Protection of Marine Water Aqualits Life 1302 62.1 Not Listed *Unandine-Feric Aluminum Silicate 12178-42.8 Not Listed *Unandine-Feric Aluminum Silicate 12178-42.8 Not Listed *Unandine-Feric Aluminum Silicate 68476-25.5 Not Listed *Unandine-Feric Aluminum Silicate 1302 62.1 Not Listed *Quariz 14008-60.7 Not Listed *Quariz 14008-60.7 Not Listed *Quariz 14008-60.7 Not Listed *Quariz 14008-60.7 Not Listed *Unandine-Feric Aluminum Silicate 1302 62.1 Not Listed *Inon 7439-89.6 Not Liste	•Quartz	14808-60-7	Not Listed
*fon 7439-89-6 10 mg/L *Foldspars 68476-25-5 Not Listed *fon 1302-62-1 Not Listed *fon 1302-62-1 Not Listed *fon 12178-42-6 Not Listed *fon 7439-89-6 Not Listed *fon 64476-25-5 Not Listed *fon 64476-25-5 Not Listed *fon 64476-25-5 Not Listed *fondingsfr 1400-60-7 Not Listed *fondingsfr 64476-25-5 Not Listed *fondings fraids - Major Accidents - Qualifying Quantities for Accident Prevention 1400-60-7 Not Listed *fondingsfraids - Major Accidents - Qualifying Quantities for Safety Reporting 1400-60-7 Not Listed <td>•Hornblende</td> <td>12178-42-6</td> <td>Not Listed</td>	•Hornblende	12178-42-6	Not Listed
*fon 7439-89-6 10 mg/L *Foldspars 68476-25-5 Not Listed *fon 1302-62-1 Not Listed *fon 1302-62-1 Not Listed *fon 12178-42-6 Not Listed *fon 7439-89-6 Not Listed *fon 64476-25-5 Not Listed *fon 64476-25-5 Not Listed *fon 64476-25-5 Not Listed *fondingsfr 1400-60-7 Not Listed *fondingsfr 64476-25-5 Not Listed *fondings fraids - Major Accidents - Qualifying Quantities for Accident Prevention 1400-60-7 Not Listed *fondingsfraids - Major Accidents - Qualifying Quantities for Safety Reporting 1400-60-7 Not Listed <td>Mexico - Ecological Criteria for Water Quality - Protection of Fresh Water Aquatic</td> <td>Life</td> <td></td>	Mexico - Ecological Criteria for Water Quality - Protection of Fresh Water Aquatic	Life	
- Pickbasis - Admandine-Forric Aluminum Silicate - Admandine-Forric Aluminu			1.0 mg/L
• Namandine-Forric Aluminum Silicate 1302-62-1 Not Listed • Quart 12178-42-6 Not Listed • Variance 12178-42-6 Not Listed • Variance 7439-89-6 0.05 mg/L • Findspars 600 mg/L 0.05 mg/L • Findspars 1302-62-1 Not Listed • Quartz 14808-60-7 Not Listed • Hormblende 12078-22-6 Not Listed • Natherlands - List of Carcinogens - 14008-60-7 Not Listed • Findspars 64078-25-5 Not Listed - • Quartz 14008-60-7 Not Listed - • Parterlands - Major Accidents - Qualifying Quantities for Accident Prevention 7439-89-6 Not Listed • Quartz 14008-60-7 Not Listed - • Parterlands - Major Accidents - Qualifying Quantities for Safety Reporting <td>•Feldspars</td> <td>68476-25-5</td> <td>-</td>	•Feldspars	68476-25-5	-
+ icnmbiende 12178-26. Not Listed • ron 7439-88- 0.05 mg/L • redispars 68478-25- Not Listed • dumandine-Ferric Aluminum Silicate 1302-42.1 Not Listed • dumandine-Ferric Aluminum Silicate 1400-60.0 Not Listed • Hornblende 1278-22.6 Not Listed • Hornblende 1278-22.6 Not Listed • Hornblende 1278-22.6 Not Listed • Hornblende 1302-42.1 Not Listed • Hornblende 1302-42.1 Not Listed • Fieldspars 64476-25.5 Not Listed • Fieldspars 64476-25.5 Not Listed • Almandine-Ferric Aluminum Silicate 1302-42.1 Not Listed • Almandine-Ferric Aluminum Silicate 1302-42.1 Not Listed • Almandine-Ferric Aluminum Silicate 1302-42.1 Not Listed • Fieldspars Not Listed 1400-60.7 Not Listed • Almandine-Ferric Aluminum Silicate 1302-42.1 Not Listed 1400-60.7 Not Listed • Ouartz + Not List	Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
+ icn/mbinde 12178-24.9 No. Listed * ron 7439-89.6 0.05 mg/L * redispars 64876-25.5 Not Listed * Almandine-Ferric Aluminum Silicate 1302-42.1 Not Listed * Jouantz 14808-60.7 Not Listed * Hornbilende 1278-24.6 Not Listed * Hornbilende 1278-24.6 Not Listed * Hornbilende 1278-24.6 Not Listed * Hornbilende 7439-89.6 Not Listed * Netherlands List of Carcinogens Not Listed * Fieldspars 64876-25.5 Not Listed * Not Manadine-Ferric Aluminum Silicate 1302-62.1 Not Listed * Outrat 14808-60.7 (resistable dust, crystalline) * Hornbiende Not Listed Not Listed * Jon 12178-42.6 Not Listed * Foldspars Not Listed Not Listed * Jon 12178-42.6 Not Listed * Jon 12178-42.6 Not Listed * Jon 12178-42.6 Not Listed	•Quartz	14808-60-7	Not Listed
Mexico - Ecological Criteria for Water Quality - Protection of Marine Water Aquatic LHE "Ion 639-89-6 0.55 mg/. "Ion 68476-255 Not Listed "Quart." 1302-62-1 Not Listed "Quart." 1302-62-1 Not Listed "Unor Ferric Aluminum Silicate 12178-42-6 Not Listed "Netherlands List of Carcinogens - "Ion 7439-89-6 Not Listed "Ion 64776-25-5 Not Listed "Jondradine-Ferric Aluminum Silicate 1302-62-1 Not Listed "Ion 7439-89-6 Not Listed	•Hornblende		Not Listed
•'on7439-89-60.05 mg/L•*Feldspars1302-62-1Not Listed•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•'domblende12178-42-6Not Listed• Homblende12178-42-6Not ListedNetherlands7439-89-6Not ListedOther7439-89-6Not Listed• Namandine-Ferric Aluminum Silicate1302-62-1Not Listed• Alumandine-Ferric Aluminum Silicate1302-62-1Not Listed<			
			0.05 mg/L
• Augurdine-Ferric Aluminum Silicate 1302.62.1 Not Listed • Uartz 14808.60.7 Not Listed • Homblende 12178.42.6 Not Listed Potter lands 12178.42.6 Not Listed Other - - - Netherlands - List of Carcinogens - - - • Fieldspars 68476.25.5 Not Listed - • Alumandine-Ferric Aluminum Silicate 1302.62.1 Not Listed - • Aumandine-Ferric Aluminum Silicate 12178.42.6 Not Listed - • Aumandine-Ferric Aluminum Silicate 1302.62.1 Not Listed - • Aumandine-Ferric Aluminum Silicate 1302.62.5 Not Listed - • Aumandine-Ferric Aluminum Silicate 1217	•Feldspars	68476-25-5	-
• Hornblende 14808-60-7 Not Listed • Nottherlands 12178-246 Not Listed • Other - - - • Metherlands - List of Carcinogens - - - • Iron 6476-255 Not Listed - • Almandine-Ferric Aluminum Silicate 1302-621 Not Listed - • Quartz 14808-60-7 (respirable dust, crystalline) - • Torn - Gastra 14808-60-7 (respirable dust, crystalline) • Uantz 14808-60-7 (respirable dust, crystalline) • Torn - Feldspars Not Listed • Almandine-Ferric Aluminum Silicate 1302-62.1 Not Listed • Ouartz 14808-60-7 Not Listed • Ouartz Not Listed Not Listed	•		Not Listed
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•Feldspars68476-25-5Not Listed•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not Listed NorwayEnvironmentVary Restricted Substances and PreparationsVary Restricted Substances and Preparations •Iron7439-89-6Not Listed•Feldspars68476-25-5Not Listed•Guartz1302-62-1Not Listed•Feldspars68476-25-5Not Listed•Guartz1302-62-1Not Listed•Quartz1302-62-1Not Listed•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not Listed•Hornble		7439-89-6	Not Listed
•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not ListedNorwayEnvironmentValueNorway - Restricted Substances and Preparations•Iron7439-89-6Not Listed•Feldspars68476-25-5Not Listed•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•Hornblende1302-62-1Not Listed•Hornblende12178-42-6Not Listed•Hornblende12178-42-6Not Listed•Hornblende12178-42-6Not ListedFussiaLaborKussia - Limiting Quantities of Hazardous SubstancesValue•Iron7439-89-6Not Listed			
•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not ListedNorwayEnvironment	•		
•Hornblende12178-42-6Not ListedNorwayEnvironmentImage: Second Sec			
NorwayEnvironmentNorway - Restricted Substances and Preparations•Iron7439-89-6Not Listed•Feldspars68476-25-5Not Listed•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not ListedRussiaLaborRussia - Limiting Quantities of Hazardous Substances•Iron7439-89-6Not Listed			
Environment Norway - Restricted Substances and Preparations •Iron 7439-89-6 Not Listed •Feldspars 68476-25-5 Not Listed •Almandine-Ferric Aluminum Silicate 1302-62-1 Not Listed •Quartz 14808-60-7 Not Listed •Hornblende 12178-42-6 Not Listed Exabor Russia Image: Substances of Hazardous Substances •Iron 7439-89-6 Not Listed	Tombiende	12170-42-0	Not Listed
Norway - Restricted Substances and Preparations•Iron7439-89-6Not Listed•Feldspars68476-25-5Not Listed•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not ListedRussiaRussia - Limiting Quantities of Hazardous Substances•Iron7439-89-6Not Listed	Norway		
Norway - Restricted Substances and Preparations•Iron7439-89-6Not Listed•Feldspars68476-25-5Not Listed•Almandine-Ferric Aluminum Silicate1302-62-1Not Listed•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not ListedRussiaRussia - Limiting Quantities of Hazardous Substances•Iron7439-89-6Not Listed	Environment		
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 Feldspars Almandine-Ferric Aluminum Silicate Quartz Hornblende 1302-62-1 Not Listed Not Listed 12178-42-6 Not Listed Russia Labor Russia - Limiting Quantities of Hazardous Substances •Iron 7439-89-6 Not Listed		7439-89-6	Not Listed
 Almandine-Ferric Aluminum Silicate Quartz Hornblende 1302-62-1 Not Listed Not Listed 12178-42-6 Not Listed Russia Labor Russia - Limiting Quantities of Hazardous Substances Iron 7439-89-6 Not Listed 			
•Quartz14808-60-7Not Listed•Hornblende12178-42-6Not ListedRussia	•		
 Hornblende 12178-42-6 Not Listed Russia Labor Russia - Limiting Quantities of Hazardous Substances Iron 7439-89-6 Not Listed 			
Russia Labor Russia - Limiting Quantities of Hazardous Substances •Iron 7439-89-6 Not Listed			
Labor Russia - Limiting Quantities of Hazardous Substances •Iron 7439-89-6 Not Listed		12110 720	
Russia - Limiting Quantities of Hazardous Substances •Iron 7439-89-6 Not Listed	Russia		
Russia - Limiting Quantities of Hazardous Substances •Iron 7439-89-6 Not Listed	l abor		
Iron 7439-89-6 Not Listed			
	-	7439-89-6	Not Listed

•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Slovak Republic		
Labor		
Slovak Republic - Selected Chemical Agents and Usages Which are Not Permitted •Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Environment Slovak Republic - Waste Regulations - List of Harmful Substances		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz •Hornblende	14808-60-7 12178-42-6	Not Listed Not Listed
Taiwan	12110 120	Hot Liotod
Environment Taiwan - Effluent Standards - Maximum Effluent Limitations		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate •Quartz	1302-62-1 14808-60-7	Not Listed Not Listed
•Hornblende	12178-42-6	Not Listed
Taiwan - Toxic Chemical Substances Control Act - Threshold Regulated Quantities		
•Iron	7439-89-6	Not Listed
•Feldspars •Almandine-Ferric Aluminum Silicate	68476-25-5 1302-62-1	Not Listed Not Listed
	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Taiwan - Toxic Chemical Substances Control Act - Classification and Control Level	-	Not Listed
•Iron •Feldspars	7439-89-6 68476-25-5	Not Listed Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
United Kingdom		
Environment		
United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air •Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
Other United Kingdom - Major Accidents - International Toxic Equivalent Factors (ITEF)		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz •Hornblende	14808-60-7 12178-42-6	Not Listed Not Listed
United Kingdom - Major Accidents - Qualifying Quantities for Accident Prevention		
•lron	7439-89-6	Not Listed
•Feldspars •Almandine-Ferric Aluminum Silicate	68476-25-5 1302-62-1	Not Listed Not Listed
	1002-02-1	INOL LISICU

•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
United Kingdom - Major Accidents - Qualifying Quantities for Safety Reporting	12170 42 0	NOT LISTOG
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
United States		
Labor		
U.S OSHA - Process Safety Management - Highly Hazardous Chemicals		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S OSHA - Specifically Regulated Chemicals		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
Environment		
U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities	12170 42 0	NOT Elotod
•lron	7439-89-6	Not Listed
		Not Listed
•Feldspars	68476-25-5	
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs	12170 42 0	NOT Elotod
•Iron	7439-89-6	Not Listed
	68476-25-5	
•Feldspars		Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S CERCLA/SARA - Section 313 - Emission Reporting		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	
•Hornblende	12178-42-6	Not Listed
	121/0-42-0	INUL LISLEU
U.S CERCLA/SARA - Section 313 - PBT Chemical Listing		

•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
United States - California		
Environment		
U.S California - Proposition 65 - Carcinogens List		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
 Almandine-Ferric Aluminum Silicate 	1302-62-1	Not Listed
•Quartz	14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of
Hamplanda	10170 40 6	respirable size) Not Listed
 Hornblende U.S California - Proposition 65 - Developmental Toxicity 	12178-42-6	NOT LISTED
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S California - Proposition 65 - No Significant Risk Levels (NSRL)		
•lron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Female	7400.00.0	
•Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Male •Iron	7439-89-6	Not Listed
•Feldspars	68476-25-5	Not Listed
•Almandine-Ferric Aluminum Silicate	1302-62-1	Not Listed
•Quartz	14808-60-7	Not Listed
•Hornblende	12178-42-6	Not Listed
	12110 42 0	

15.2 Chemical Safety Assessment

• No Chemical Safety Assessment has been carried out.

15.3 Other Information

• WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H335 May cause respiratory irritation
 - H302 Harmful if swallowed
 - H372 Causes damage to organs through prolonged or repeated exposure.

H373 - May cause damage to organs through prolonged or repeated exposure.
R22 - Harmful if swallowed.
R37 - Irritating to respiratory system.
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
19/August/2014

Last Revision Date Preparation Date

19/August/2014
19/August/2014

 Key to abbreviations

 NDA = No Data Available

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