Gypsum (Stuart Station)

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 09/11/2015 Revision date: 09/11/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Gypsum (Stuart Station)

CAS No : 68131-74-8

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Byproduct.

1.3. Details of the supplier of the safety data sheet

Dayton Power & Light Company - Killen Station
14869 US 52
Manchester, Ohio 45144
T 1-937-549-2641 Extension: 5809

1.4. Emergency telephone number

Emergency number : 1-937-549-2641 Extension: 5809

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irritation 2

Eye Damage 1

Carcinogenicity 1A

Specific Target Organ Toxicity – Repeated Exposure 1

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS05 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : Causes skin irritation. Causes serious eye damage. May cause cancer. Causes damage to lungs through prolonged or repeated exposure.

Precautionary statements (GHS-US) : Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

Other hazards not contributing to the classification : Causes severe damage to the respiratory tract.

2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.

3.2. Mixture

Name	Product identifier	%
Ashes, residues	(CAS No) 68131-74-8	100
Calcium oxide	(CAS No) 1305-78-8	10 – 30
Calcium sulfate	(CAS No) 7778-18-9	60 - 100
Titanium dioxide	(CAS No) 13463-67-7	< 0.1
Quartz	(CAS No) 14808-60-7	< 0.75
Silica, cristobalite	(CAS No) 14464-46-1	< 1
Tridymite	(CAS No) 15468-32-3	< 1
Arsenic	(CAS No) 7440-38-2	< 0.1
Beryllium	(CAS No) 7440-41-7	< 0.1
Cadmium	(CAS No) 7440-43-9	< 0.1
Cobalt	(CAS No) 7440-48-4	< 0.1
Lead	(CAS No) 7439-92-1	< 0.1
Mercury	(CAS No) 7439-97-6	< 0.1
Nickel	(CAS No) 7440-02-0	< 0.1

* The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.

First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Causes severe damage to the respiratory tract.

Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Treat for surrounding material.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Scoop up material and place in a disposal container.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Avoid generating dust.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ashes, residues (68131-74-8)	
ACGIH	Not applicable
OSHA	Not applicable

Calcium oxide (1305-78-8)		
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³

Calcium sulfate (7778-18-9)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (inhalable fraction)
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)

Titanium dioxide (13463-67-7)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust)

Quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
OSHA	Not applicable	

Silica, cristobalite (14464-46-1)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
OSHA	Not applicable	

Tridymite (15468-32-3)	
ACGIH	Not applicable
OSHA	Not applicable

Arsenic (7440-38-2)		
ACGIH	ACGIH TWA (mg/m³)	0.01 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	0.01 mg/m³

Beryllium (7440-41-7)		
ACGIH	ACGIH TWA (mg/m³)	0.00005 mg/m³ (inhalable fraction)
OSHA	OSHA PEL (TWA) (mg/m³)	2 µg/m³
OSHA	OSHA PEL (Ceiling) (mg/m³)	5 µg/m³

Cadmium (7440-43-9)		
ACGIH	ACGIH TWA (mg/m³)	0.01 mg/m³ 0.002 mg/m³ (respirable fraction)

Cadmium (7440-43-9)		
OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³ (fume) 0.2 mg/m³ (dust) 5 µg/m³
OSHA	OSHA PEL (Ceiling) (mg/m³)	0.3 mg/m³ (applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect-fume) 0.6 mg/m³ (applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect-dust)

Cobalt (7440-48-4)		
ACGIH	ACGIH TWA (mg/m³)	0.02 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	0.1 mg/m³ (dust and fume)

Lead (7439-92-1)		
ACGIH	ACGIH TWA (mg/m³)	0.05 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	50 µg/m³

Mercury (7439-97-6)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³
OSHA	OSHA PEL (Ceiling) (mg/m³)	0.1 mg/m³

Nickel (7440-02-0)		
ACGIH	ACGIH TWA (mg/m³)	1.5 mg/m³ (inhalable fraction)
OSHA	OSHA PEL (TWA) (mg/m³)	1 mg/m³

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection : Wear suitable gloves.

Eye protection : Wear eye protection.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation to maintain airborne fly ash levels below the exposure limits, wear suitable NIOSH-approved, properly fitted respiratory equipment.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Powder.

Colour : White / Off-white.

Odour : No odor.

Odour threshold : No data available

pH : No data available

pH solution : 8.39 (10% slurry)

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Relative evaporation rate (butylacetate=1) : No data available

Flammability (solid, gas) : Not flammable

Explosive limits : No data available

Explosive properties : No data available

Oxidising properties : No data available

Vapour pressure	:	No data available
Relative density	:	2.3
Relative vapour density at 20 °C	:	No data available
Density	:	No data available
Solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified.

Gypsum (Stuart Station) (68131-74-8)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 20 mg/l/4h
Calcium oxide (1305-78-8)	
LD50 oral rat	> 2000 mg/kg
Calcium sulfate (7778-18-9)	
LD50 oral rat	> 3000 mg/kg
Titanium dioxide (13463-67-7)	
LD50 oral rat	> 10000 mg/kg
Arsenic (7440-38-2)	
LD50 oral rat	15 mg/kg
Cadmium (7440-43-9)	
LD50 oral rat	2330 mg/kg
LC50 inhalation rat	25 mg/m³/30 min
Cobalt (7440-48-4)	
LD50 oral rat	6171 mg/kg
LC50 inhalation rat	> 10 mg/l/1h
Mercury (7439-97-6)	
LC50 inhalation rat	19 mg/m³/4h

Nickel (7440-02-0)	
LD50 oral rat	> 9000 mg/kg

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.

Germ cell mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : May cause cancer.

Titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Silica, cristobalite (14464-46-1)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Tridymite (15468-32-3)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Arsenic (7440-38-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Beryllium (7440-41-7)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Cadmium (7440-43-9)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
In OSHA Specifically Regulated Carcinogen list	Yes

Cobalt (7440-48-4)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity

Lead (7439-92-1)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

Mercury (7439-97-6)	
IARC group	3 - Not classifiable

Nickel (7440-02-0)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

Reproductive toxicity : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure) : Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure) : Causes damage to lungs through prolonged or repeated exposure.

Aspiration hazard : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : Causes severe damage to the respiratory tract.

Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

Gypsum (Stuart Station) (68131-74-8)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Gypsum (Stuart Station) (68131-74-8)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport.

Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Tridymite	CAS No 15468-32-3	< 1%

Arsenic (7440-38-2)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Beryllium (7440-41-7)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Cadmium (7440-43-9)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Cobalt (7440-48-4)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Lead (7439-92-1)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Mercury (7439-97-6)	
Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	S - S - indicates a substance that is identified in a proposed or final Significant New Uses Rule.
SARA Section 313 - Emission Reporting	1.0 %

Nickel (7440-02-0)	
Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

15.2. US State regulations

Gypsum (Stuart Station)	
State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information

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Other information : None.

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