

**CLAYTONE-PI**

Version 5

Revision Date 10/15/2024

Print Date 04/30/2026

**SECTION 1. IDENTIFICATION**

Product name : CLAYTONE-PI

**Manufacturer or supplier's details**Company : BYK USA LLC  
524 South Cherry Street  
Wallingford CT 06492

Telephone : (203) 265-2086

Visit our web site : [www.byk.com](http://www.byk.com)

E-mail address : BRIEF.BYK.NAFTA@altana.com

Emergency telephone : 203-265-2086; CHEMTREC 1-800-424-9300 / +1  
number 703-527-3887**Recommended use of the chemical and restrictions on use**

Recommended use : Rheology Additive

Restrictions on use : Refer to Section 15 for any restrictions that may apply

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Combustible dust :

Carcinogenicity : Category 1A

Specific target organ toxicity : Category 1 (Lungs)  
- repeated exposure  
(Inhalation)**GHS label elements**

Hazard pictograms :



Signal word : Danger

Hazard statements : May form combustible dust concentrations in air.  
H350 May cause cancer.  
H372 Causes damage to organs (Lungs) through prolonged or  
repeated exposure if inhaled.Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read  
and understood.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.

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P270 Do not eat, drink or smoke when using this product.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance  
 Chemical nature : Organophilic phyllosilicate

**Hazardous components**

Component	CAS-No.	Concentration (%)
Crystalline silica (quartz)	14808-60-7	>= 1 - < 5

### SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.  
 Show this safety data sheet to the doctor in attendance.  
 Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
 If symptoms persist, call a physician.

In case of skin contact : Remove contaminated clothing. Wash thoroughly with soap and water.

In case of eye contact : Flush eyes with water as a precaution.  
 Remove contact lenses.  
 Protect unharmed eye.  
 Keep eye wide open while rinsing.  
 If eye irritation persists, consult a specialist.

If swallowed : Induce vomiting immediately and call a physician.  
 Keep respiratory tract clear.  
 Do not give milk or alcoholic beverages.  
 Never give anything by mouth to an unconscious person.  
 If symptoms persist, call a physician.  
 Take victim immediately to hospital.

Most important symptoms : No information available.

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and effects, both acute and delayed

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Handle as an industrial chemical.  
Keep dust to a minimum to avoid potential formation of explosive air/dust mixture.  
Will not explode on mechanical impact.  
Cool closed containers exposed to fire with water spray.  
Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Ammonia
- Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapours/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the

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- application area.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Keep away from oxidizing agents.  
Keep away from strong acids.  
Keep away from strong bases.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Crystalline silica (quartz)	14808-60-7	TWA (respirable)	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2	OSHA Z-3
Crystalline silica (quartz)		TWA (respirable)	250 mppcf / %SiO <sub>2</sub> +5	OSHA Z-3
Crystalline silica (quartz)		TWA (respirable dust fraction)	0.1 mg/m <sup>3</sup>	OSHA P0
Crystalline silica (quartz)		TWA (Respirable fraction)	0.025 mg/m <sup>3</sup> (Silica)	ACGIH
Crystalline silica (quartz)		TWA (Respirable dust)	0.05 mg/m <sup>3</sup> (Silica)	NIOSH REL
Crystalline silica (quartz)		TWA (Respirable dust)	0.05 mg/m <sup>3</sup>	OSHA Z-1
Crystalline silica (quartz)		PEL (respirable)	0.05 mg/m <sup>3</sup>	OSHA CARC

#### Further occupational exposure limits

Description	Value type	Control parameters	Basis
inert or nuisance dust	TWA	50Million particles per cubic foot total dust	OSHA Z-3
	TWA	15 mg/m <sup>3</sup> total dust	OSHA Z-3
	TWA	5 mg/m <sup>3</sup> respirable fraction	OSHA Z-3
	TWA	15Million particles per cubic	OSHA Z-3

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		foot respirable fraction	
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**Engineering measures** : Engineering and/or work practice controls should be implemented to maintain exposure to respirable crystalline silica below the permissible exposure limit.

### Personal protective equipment

**Respiratory protection** : In the case of dust or aerosol formation use respirator with an approved filter.  
Dust safety masks are recommended when the dust concentration is more than 10 mg/m<sup>3</sup>.

**Hand protection**  
**Remarks** : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

**Eye protection** : Eye wash bottle with pure water  
Tightly fitting safety goggles

**Skin and body protection** : Dust impervious protective suit  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures** : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : powder  
**Colour** : off-white  
**Odour** : odourless  
**Odour Threshold** : Not applicable

**pH** : 4 - 6, Concentration: 1 % (68 °F (20 °C)) Method: Universal pH-value indicator

**Melting point/ range** : Not applicable  
**Boiling point/boiling range** : Not applicable  
**Vapour pressure** : Not applicable

**Flash point** : Not applicable  
**Upper explosion limit** : Not applicable

**Lower explosion limit** : 80 - 90 g/m<sup>3</sup>

**Evaporation rate** : Not applicable

**Flammability (solid, gas)** : May form combustible dust concentrations in air.

**Dust explosion description** : 181 m.b./s

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number Kst	
Dust explosion class	: St1
Minimum Explosible Concentration	: 50 g/m3
Relative vapour density	: Not applicable
Relative Density/Specific Gravity	: No data available
Density	: 1.4 - 1.8 g/cm3 (68 °F (20 °C))
Bulk density	: No data available
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No bioaccumulation is to be expected.
Ignition temperature	: 446 - 464 °F (230 - 240 °C) Ignition temperature dust layer
	: 770 - 788 °F (410 - 420 °C) Ignition temperature dust cloud
Thermal decomposition	: Not applicable
Viscosity	
Viscosity, dynamic	: Not applicable

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed.
	Dust may form explosive mixture in air.
Conditions to avoid	: No data available
Incompatible materials	: Strong oxidizing agents Strong acids and strong bases
Hazardous decomposition products	: No data available

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**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Acute toxicity****Product:**

Acute oral toxicity : Remarks: No data available

**Skin corrosion/irritation****Product:**

Remarks: No data available

**Serious eye damage/eye irritation****Product:**

Remarks: No data available

**Respiratory or skin sensitisation****Product:**

Remarks: No data available

**Carcinogenicity**

<b>IARC</b>	Group 1: Carcinogenic to humans	
	Crystalline silica (quartz)	14808-60-7
<b>OSHA</b>	OSHA specifically regulated carcinogen	
	Crystalline silica (quartz)	14808-60-7
<b>NTP</b>	Known to be human carcinogen	
	Crystalline silica (quartz)	14808-60-7

**Repeated dose toxicity****Product:**

Remarks: Long term inhalation of crystalline silica dusts may cause lung disease (silicosis). Crystalline silica has been classified as a probable human carcinogen by IARC. Epidemiological studies suggest that respirable crystalline silica has caused both immune system and kidney effects. The mechanisms causing these effects are unclear and a dose-response relationship has not been determined.

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**Experience with human exposure****Product:**

Inhalation:

Symptoms:

Dust particles may cause irritation of the respiratory tract.

Skin contact:

Symptoms:

Contact may cause irritation.

Eye contact:

Symptoms:

Contact may cause irritation.

Ingestion:

Symptoms:

Ingestion will probably cause irritation of the digestive tract.

**Further information****Product:**

Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential****Product:**

Bioaccumulation

: Remarks: No bioaccumulation is to be expected.

**Mobility in soil****Product:**

Mobility

: Remarks: Bentonite is almost insoluble and thus presents a low mobility in most soils

**Other adverse effects**

No data available

**Product:**

Regulation

40 CFR Protection of Environment; Part 82 Protection of



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### US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

This material does not contain any components with a SARA 302 RQ.

**SARA 311/312 Hazards** : Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling of chemicals (i.e. GHS). Please refer to Section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Non-volatile (Wt) : No data available

### Massachusetts Right To Know

Crystalline silica (quartz)	14808-60-7
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### Pennsylvania Right To Know

Organophilic phyllosilicate	-
Crystalline silica (quartz)	14808-60-7

### New Jersey Right To Know

**New Jersey Trade Secret Registry Number for the product (NJ TSRN)** : 800963-1076

### California Prop. 65

 **WARNING:** This product can expose you to chemicals including Crystalline silica (quartz), which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**The components of this product are reported in the following inventories:**

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TSCA	:	We certify that all of the components of this product are either listed on the TSCA Inventory or are not subject to the notification requirements per 40 CFR 720 30(h).
Section 4 / 12(b)	:	Not applicable
Section 5	:	Not applicable
TSCA Inventory Active List	:	All components of this product are listed active and/or are exempt
DSL	:	We certify that all of the components of this product are listed on the DSL.

**SECTION 16. OTHER INFORMATION**

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