CLAYTONE-1

Version 2 | Revision Date 05/17/2026 | Print Date 07/09/2026

SECTION 1. IDENTIFICATION

Product name : CLAYTONE-1

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

Emergency telephone number : 203-265-2086; CHEMTREC 1-800-424-9300 / +1 703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Feed 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 - repeated exposure (Inhalation) : Category 1 (Lungs)

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.

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

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Pure 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.
If breathed in, move person into fresh air.

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.

and effects, both acute and delayed

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Foam Carbon dioxide (CO2) 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. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides Nitrogen oxides (NOx)
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	:	Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13). 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 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.

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/m3 / %SiO2+2	OSHA Z-3
Crystalline silica (quartz)		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
Crystalline silica (quartz)		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
Crystalline silica (quartz)		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH
Crystalline silica (quartz)		TWA (Respirable dust)	0.05 mg/m3 (Silica)	NIOSH REL
Crystalline silica (quartz)		TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1
Crystalline silica (quartz)		PEL (respirable)	0.05 mg/m3	OSHA CARC

OSHA has established an action limit of 0.025 mg/m3 (8-hr TWA) and a permissible exposure limit of .05 mg/m3 (8-hour TWA) for respirable crystalline silica.

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Crystalline silica (quartz)		TWA	0.025 mg/m3	ACGIH

		(Respirable particulate matter)	(Silica)	
Crystalline silica (quartz)		TWA (Respirable dust)	0.05 mg/m3 (Silica)	NIOSH REL
Crystalline silica (quartz)		TWA (Respirable dust)	0.05 mg/m3	OSHA Z-1
Crystalline silica (quartz)		PEL (respirable)	0.05 mg/m3	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/m3 total dust	OSHA Z-3
	TWA	5 mg/m3 respirable fraction	OSHA Z-3
	TWA	15Million particles per cubic foot respirable fraction	OSHA Z-3

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 : Unless air monitoring demonstrates vapor/mist/dust levels are below the PEL/TLV wear a properly fitted respirator (NIOSH approved) or dust mask during exposure.
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/m3.

Hand protection

Material : Neoprene

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

Physical state	:	powder
Colour	:	off-white
Odour	:	odourless
Odour Threshold	:	Not applicable
pH	:	6 - 8, Concentration: 1 % (68 °F (20 °C)) Method: Universal pH-value indicator
Melting point/freezing point	:	Not applicable
Boiling point/boiling range	:	Not applicable
Vapour pressure	:	Not applicable
Flash point	:	Not applicable
Upper explosion limit	:	Not applicable
Lower explosion limit	:	85 g/m3
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	May form combustible dust concentrations in air. Combustible Solids
Dust explosion description number Kst	:	147 m.b_/s
Dust explosion class	:	St1
Minimum Explosible Concentration	:	No data available
Relative vapour density	:	Not applicable
Relative Density/Specific Gravity	:	No data available
Particle size	:	No data available
Density	:	1.9 g/cm3 (68 °F (20 °C))
Bulk density	:	336 - 461 kg/m3 Pour density 511 - 698 kg/m3 Tap density

Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	374 °F (190 °C) Ignition temperature dust layer 950 °F (510 °C) Ignition temperature dust cloud
Thermal decomposition	:	No data available
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	:	Dust may form explosive mixture in air. No decomposition if stored and applied as directed.
Conditions to avoid	:	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. No data available
Incompatible materials	:	Strong oxidizing agents Acids
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation
Ingestion
Eye contact
Skin contact

Acute toxicity

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

IARC	Group 1: Carcinogenic to humans	
	Crystalline silica (quartz)	14808-60-7
OSHA	OSHA specifically regulated carcinogen	
	Crystalline silica (quartz)	14808-60-7
NTP	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.

Remarks: No data available

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

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

EPA Hazardous Waste Code(s)	:	Not applicable.
Waste from residues	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

US. EPA CERCLA Hazardous Substances (40 CFR 302)
This material does not contain any components with a CERCLA RQ.

SARA 304 - Emergency Release Notification
This material does not contain any components with a section 304 EHS RQ.

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 SOCMI 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

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) : 800963-1178

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.

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

TSCA : All substances listed as active on the TSCA inventory

Section 5a : No substances are subject to a Significant New Use Rule.

Section 4 / 12(b) : No substances are subject to TSCA 12(b) export notification

requirements.

DSL : We certify that all of the components of this product are listed on the DSL.

SECTION 16. OTHER INFORMATION

Revision Date : 05/17/2026

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.