SAFETY DATA SHEET



1. Identification

Product identifier SPV® 200

Other means of identification

CAS number 1302-78-9

Synonyms Smectite * Bentonite * Bentonite, Sodian * Bentonite, Calcian * Sodium-activated Bentonite *

Montmorillonite

Recommended use Not available.

Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential

presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required

under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name American Colloid Company

Address 2870 Forbs Avenue

Hoffman Estates, IL 60192

United States

Telephone General Information 800 426-5564

Website www.colloid.com

E-mail safetydata@mineralstech.com

Emergency phone number +18665194752(US,Ca,Mex) +17604763962 Access Code333562

Americas 1.866.519.4752 (US, Canada, Mexico) 1 760 476 3962

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A
Carcinogenicity Category 1A
Specific target organ toxicity, repeated Category 1

exposure

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response If exposed or concerned: Get medical advice/attention.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information 100% of the mixture consists of component(s) of unknown acute dermal toxicity.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
VOLCLAY® CRUMBLES	Smectite Bentonite Bentonite, Sodian Bentonite, Calcian Sodium-activated Bentonite Montmorillonite	1302-78-9	100

Constituents

Chemical name	Common name and synonyms	CAS number	%
QUARTZ (SIO2)		14808-60-7	<= 6
CRISTOBALITE		14464-46-1	<= 2

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret. Bentonite is a UVCB substance sub-type 4. The purity of the product is 100 % w/w. Bentonite is composed mainly of smectite group minerals but the composition is varied, as expected for a UVCB substance, and other mineral constituents will be present in small and varying amounts. These minor constituents are not relevant for classification and labelling.

Composition comments

Occupational Exposure Limits for constituents are listed in Section 8. The purity of the product is 100% w/w. Impurities are not applicable for a UVCB substance.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist. No specific first aid measures

noted.

Skin contact Get medical attention if irritation develops and persists. No specific first aid measures noted. Wash

skin with soap and water.

Eye contact No specific first aid measures noted. Do not rub eyes. Rinse with water. Get medical attention if

irritation develops and persists. Flush thoroughly with water. If irritation occurs, get medical

Dust in the eyes will cause irritation. Dusts may irritate the respiratory tract, skin and eyes.

assistance.

Ingestion No specific first aid measures noted. Rinse mouth thoroughly. Get medical attention if any

Prolonged exposure may cause chronic effects.

discomfort occurs.

Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special

treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. No hazards which require special first aid

measures. Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Use any media suitable for the surrounding fires.

Not applicable, non-combustible.

Specific hazards arising from

the chemical

None known. The product itself does not burn.

Special protective equipment and precautions for firefighters Material can be slippery when wet. None known.

Fire fighting

equipment/instructions

Use water spray to cool unopened containers. Material can be slippery when wet.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted. This material will not burn.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Material can be slippery when wet. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

Methods and materials for containment and cleaning up

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. No special restrictions on storage with other products. Store in a dry area. Store in original tightly closed container. Keep the container dry. Store in a well-ventilated place. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

Constituents	Contaminants (29 CFR 1910.1000) Type	Value	Form
CRISTOBALITE (CAS 14464-46-1)	PEL	0.05 mg/m3	Respirable dust.
QUARTZ (SIO2) (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.
US. OSHA Table Z-3 (29 CFR 1910.	1000)		
Constituents	Туре	Value	Form
INERT OR NUISANCE DUSTS	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
CRISTOBALITE (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable.
· ·		1.2 mppcf	Respirable.
QUARTZ (SIO2) (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
•		2.4 mppcf	Respirable.
US. ACGIH Threshold Limit Values	•		
Constituents	Туре	Value	Form
CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
QUARTZ (SIO2) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards
Constituents
Type
Value
Form

CRISTOBALITE (CAS
14464-46-1)
QUARTZ (SIO2) (CAS
14808-60-7)

TWA
0.05 mg/m3
Respirable dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. 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. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter. Wear

dust-resistant safety goggles where there is danger of eye contact.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. No protection is ordinarily required under normal

conditions of use.

Other Use of an impervious apron is recommended. Normal work clothing (long sleeved shirts and long

pants) is recommended.

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels

exceeding the exposure limits. Chemical respirator with organic vapor cartridge, full facepiece,

dust and mist filter.

Thermal hazards Not applicable.

General hygiene considerations

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Use good industrial hygiene practices in handling this material.

9. Physical and chemical properties

Appearance Lump, granular or fine powder.

Physical state Solid.

Form Powder. Various.

Color Various.
Odor None.

Odor threshold Not applicable.

pH 8.5 - 11

Melting point/freezing point $> 842 \, ^{\circ}\text{F} \, (> 450 \, ^{\circ}\text{C}) \, / \, \text{Not applicable}.$

Initial boiling point and boiling

range

Not applicable.

Flash point Not applicable.

Evaporation rate Not available.

Flammability (solid, gas) This product is not flammable.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not applicable.

Flammability limit - upper

(%)

Not applicable.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

por pressure Not applicable.

Vapor pressure Not applicable.
Vapor density Not applicable.

Material name: SPV® 200 sps us

Relative density 2.6 g/cm³

Solubility(ies)

Solubility (water)< 0.9 mg/l</th>Partition coefficientNot applicable.(n-octanol/water)Not applicable.

(n-octanol/water) Not applicable.
 Auto-ignition temperature Not applicable.
 Decomposition temperature > 932 °F (> 500 °C)
 Viscosity Not applicable.

Viscosity temperature Not applicable.

Other information

Bulk density 0.9 - 1.4 g/cm³ **Explosive limit** Not applicable.

Explosive properties Not explosive. Not explosive

Explosivity
Not applicable.
Flame extension
Not applicable.
Flammability
Not applicable.
Flammability (flash back)
Not applicable.
Flammability (Heat of Not applicable.

combustion)

Flammability (Train fire)
Not applicable.
Flammability class
Not applicable.
Not applicable.
Wolflammable
UVCB Substance
Molecular formula
UVCB Substance
Not applicable.
Not oxidizing properties
Not oxidizing. None.

Percent volatile 0 % pH in aqueous solution 8.5 - 11

Specific gravity Not applicable.

VOC CARB 0 %

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Stable at normal conditions.

Possibility of hazardous

reactions

Will not occur.

Conditions to avoid Moisture. Avoid temperatures exceeding the decomposition temperature. Contact with

incompatible materials.

Incompatible materials None known.

Hazardous decomposition

products

None.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause damage to organs through prolonged or repeated exposure by inhalation. Dust may

irritate respiratory system.

Skin contact Dust or powder may irritate the skin.

Eye contact Dust in the eyes will cause irritation.

Ingestion Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

Dusts may irritate the respiratory tract, skin and eyes. None known.

Information on toxicological effects

Acute toxicity Not classified. Not known.

Product Species Test Results

SPV® 200 (CAS 1302-78-9)

Acute

Inhalation

Dust

LC50 Rat > 5.27 mg/l, 4 hr OECD 436

Oral Dust

LD50 Rat > 2000 mg/kg OECD 425

Constituents **Species Test Results**

CRISTOBALITE (CAS 14464-46-1)

Acute Oral

LD50 Rat > 22500 mg/kg

Skin corrosion/irritation Not classified.

Serious eve damage/eve

irritation

Mild irritant to eyes (according to the modified Kay & Calandra criteria)

Respiratory or skin sensitization

Respiratory sensitization Not classified. Not classified. Skin sensitization Germ cell mutagenicity Not classified.

Carcinogenicity In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded

that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. May cause cancer, Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. The product does not meet the criteria for classification as hazardous according to EC Regulation 1272/2008 and

Directive 67/548/EC as amended. The product contains less than 1% w/w RCS (respirable

crystalline silica).

IARC Monographs. Overall Evaluation of Carcinogenicity

CRISTOBALITE (CAS 14464-46-1) 1 Carcinogenic to humans. QUARTZ (SIO2) (CAS 14808-60-7) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

CRISTOBALITE (CAS 14464-46-1) Cancer QUARTZ (SIO2) (CAS 14808-60-7) Cancer **US. National Toxicology Program (NTP) Report on Carcinogens**

CRISTOBALITE (CAS 14464-46-1) Known To Be Human Carcinogen.

Reasonably Anticipated to be a Human Carcinogen.

Known To Be Human Carcinogen. QUARTZ (SIO2) (CAS 14808-60-7)

Reproductive toxicity Not classified. Specific target organ toxicity -Not classified.

single exposure

Causes damage to organs through prolonged or repeated exposure.

Specific target organ toxicity repeated exposure

Aspiration hazard

Not an aspiration hazard.

Chronic effects Causes damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Species Product Test Results

VOLCLAY® CRUMBLES (CAS 1302-78-9)

Aquatic

EC50 Algae Freshwater algae > 100 mg/l, 72 hours Crustacea EC50 Coon stripe shrimp (Pandalus danae) 24.8 mg/l, 96 hours > 100 mg/l, 48 hours Daphnia Dungeness or edible crab (Cancer 81.6 mg/l, 96 hours magister) Fish LC50 Freshwater fish 16000 mg/l, 96 hours

Persistence and degradability Not relevant for inorganic substances

Bioaccumulative potential Will not bio-accumulate.

Mobility in soil Bentonite is almost insoluble and thus presents a low mobility in most soils.

Marine water fish

The product has poor water-solubility. Mobility in general

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

2800 - 3200 ma/l. 24 hours

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Store containers and offer for recycling of material when in accordance with the local

regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to

Not applicable.

Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

CRISTOBALITE (CAS 14464-46-1) Cancer QUARTZ (SIO2) (CAS 14808-60-7) Cancer CRISTOBALITE (CAS 14464-46-1) lung effects QUARTZ (SIO2) (CAS 14808-60-7) lung effects

CRISTOBALITE (CAS 14464-46-1) immune system effects QUARTZ (SIO2) (CAS 14808-60-7) immune system effects

CRISTOBALITE (CAS 14464-46-1) kidney effects
QUARTZ (SIO2) (CAS 14808-60-7) kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

No (Exempt)

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Contains component(s) regulated under the Safe Drinking Water Act.

(SDWA)

Food and Drug

Administration (FDA)

Total food additive
Direct food additive
GRAS food additive

US state regulations

California Proposition 65



WARNING: This product can expose you to QUARTZ (SIO2), which is known to the State of California to cause

cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

QUARTZ (SIO2) (CAS 14808-60-7) Listed: October 1, 1988

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

CRISTOBALITE (CAS 14464-46-1) QUARTZ (SIO2) (CAS 14808-60-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information, including date of preparation or last revision

Issue date29-January-2020Revision date29-January-2020

Version # 19

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Further information This safety datasheet only contains information relating to safety and does not replace any product

information or product specification.

HMIS® ratings Health: 3*

Flammability: 0 Physical hazard: 0

NFPA ratings Health: 2

Flammability: 0 Instability: 0

List of abbreviations

SWERF = Size-Weighted Relevant Fine Fraction methodology is a scientific method developed to quantify the content of respirable particles within a bulk product. All details about the SWERF

method are available at www.crystallinesilica.eu.

UVCB = a substance of Unknown or Variable composition, Complex reaction products or

Biological materials

References For any information on literature references or toxicity/ecotoxicity studies, please contact the

supplier.

Disclaimer 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 manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use. 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. American Colloid Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written

based on the best knowledge and experience currently available.

Revision information

Product and Company Identification: Alternate Trade Names

Material name: SPV® 200 sps us

4181 Version #: 19 Revision date: 29-January-2020 Issue date: 29-January-2020