Safety Data Sheet
Rice Hull Silica - F

Revision Date: 08/25/2021

1. Identification

1.1. Product identifier

Product Identity	Rice Hull Silica - F
Alternate Names	Rice Hull Fly Ash, Rice Hull Silica - F, Rice Husk Fly Ash

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

Intended use	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	Wadham Energy LP 6247 Myers Road Williams, CA 95987
Emergency **CHEMTREC (USA)**	(800) 424-9300

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Carc. 1A;H350	May cause cancer.
STOT RE 1;H372	Causes damage to organs through prolonged or repeated exposure. Specific Target Organs: (lungs)

2.2. Label elements



Danger

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

[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, mist, vapors or spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P281 Use personal protective equipment as required.

[Response]

P308+313 IF exposed or concerned: Get medical advice or attention.

P314 Get Medical advice or attention if you feel unwell.

[Storage]

P405 Store locked up.

[Disposal]

P501 Dispose of contents or container in accordance with local and national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Amorphous Silica **CAS Number: 0007631-86-9**	**75 - 96**	**Not Classified**	**----**
Carbon **CAS Number: 0007440-44-0**	**1.0 - 10**	**Not Classified**	**----**
Cristobalite **CAS Number: 0014464-46-1**	**0 - 5**	**STOT RE 1;H372**	**----**
Crystalline silica (Quartz) (respirable) **CAS Number: 0014808-60-7**	**0 - 0.5**	**Carc. 1A;H350**	**----**

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
*PBT/vPvB - PBT-substance or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview CALIFORNIA PROP 65 WARNING: This product contains a chemical known to the State of California to cause cancer.

POTENTIAL ACUTE HEALTH EFFECTS: Irritation of the mucus membranes such as eyes or respiratory system may occur. Skin contact may be abrasive. Inhalation of high levels of crystalline silica can result in acute silicosis, a disease of the lung.

POTENTIAL CHRONIC HEALTH EFFECTS: IARC has classified cristobalite as a Class 2A carcinogen. Exposure to respirable cristobalite and/or quartz can result in silicosis, a disease of the lung.

MEDICAL CONDITIONS POTENTIALLY AGGRAVATED BY EXPOSURE: Pre-existing upper respiratory and lung diseases such as but not limited to bronchitis, emphysema, and asthma.

Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.
Treat symptomatically. Check section 2.2 (GHS Label Elements) for further details.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Do not breathe dust, fume, mist, vapors or spray.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. ----

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wetting of spilled materials through light spray or misting controls nuisance dust generation. Collect moistened spilled product and place in sealed container for disposal in accordance with local regulations.

DISPOSAL: Waste is non-hazardous as defined by RCRA (40 CFR 261). It must be managed in such a manner as to avoid the generation of dust. State and local regulations vary; consult with local agencies as needed for accepted disposal methods.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Unless otherwise determined to be safe by a certified industrial hygienist, a NIOSH approved respirator, gloves, and eye protection should be worn when conducting operations with open packages of this material. Wetting of spilled product controls nuisance dust generation. Avoid breathing dust. Avoid contact with eyes. Seal broken packages immediately. Follow all MSDS/Label warnings when handling empty containers.

Check section 2.2 (GHS Label Elements) for further details. - [Prevention]

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: No data available.

Check section 2.2 (GHS Label Elements) for further details. - [Storage]

7.3. Specific end use(s)

No data available.

Section 8. Exposure controls / personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007440-44-0	Carbon	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	No Established Limit
		NIOSH	no established RELs
0007631-86-9	Amorphous Silica	OSHA	TWA 20 mppcf (80 mg/m3/%SiO2)
		ACGIH	No Established Limit
		NIOSH	TWA 6 mg/m3
0014464-46-1	Cristobalite	OSHA	No Established Limit
		ACGIH	TWA: 0.025 mg/m3
		NIOSH	No Established Limit
0014808-60-7	Crystalline silica (Quartz) (respirable)	OSHA	PEL 50 µg/m3
		ACGIH	TWA: 0.025 mg/m3
		NIOSH	0.05 mg/m3 TWA (respirable)

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m3 (50 mppcf*) TWA, ACGIH 10 mg/m3.

8.2. Exposure controls

Respiratory Unless otherwise determined to be safe, when handling open packages of this product or when exposure to dust is possible and unavoidable, a NIOSH approved cartridge respirator rated for particulate matter should be worn when handling open packages of this product. Avoid breathing dust.

Eyes	Protective safety glasses recommended
Skin	Protective gloves recommended.
Engineering Controls	LOCAL EXHAUST: Filter or Wet Scrub SPECIAL: Provide sufficient airflow in confined spaces to prevent exceeding established occupational health standards. MECHANICAL (GENERAL): Dust Collector OTHER: Water spray on open piles to prevent dust generation. The level of airborne respirable cristobalite and quartz created when handling this product is dependent on handling practices. When uniformly moistened (30+% water), the potential to generate respirable material is greatly reduced.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Check section 2.2 (GHS Label Elements) for further details.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Color: Dark grey/black Physical State: Solid
Odor	Odorless
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	1600 C
Initial boiling point and boiling range	2230 C
Flash Point	Not Measured
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured
Vapor pressure (Pa)	Inert, no vapors
Vapor Density	Inert, no vapors
Relative Density	0.54 - 0.66
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Bulk Density	0.25 - 0.50 g/cc

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity

Insoluble particles discolor water.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

No hazardous decomposition data available.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Amorphous Silica - (7631-86-9)	> 5,000.00, Rat - Category: NA	> 5,000.00, Rabbit - Category: NA	No data available	No data available	No data available
Carbon - (7440-44-0)	10,000.00, Rat - Category: NA	No data available	No data available	64.40, Rat - Category: NA	No data available
Cristobalite - (14464-46-1)	No data available	No data available	No data available	No data available	No data available
Crystalline silica (Quartz) (respirable) - (14808-60-7)	No data available	No data available	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007440-44-0	Carbon	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
0007631-86-9	Amorphous Silica	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
		ACGIH	No Established Limit
0014464-46-1	Cristobalite	OSHA	Regulated Carcinogen: No;

		NTP	Known: Yes; Suspected: No;
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	A2
0014808-60-7	Crystalline silica (Quartz) (respirable)	OSHA	Regulated Carcinogen: No;
		NTP	Known: Yes; Suspected: No;
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	A2

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	1A	May cause cancer.
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

Section 12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Amorphous Silica - (7631-86-9)	1,033.016, Fishes species	512.078, Daphnid species	> 10,000.00 (72 hr), Desmodesmus subspicatus
Carbon - (7440-44-0)	Not Available	Not Available	Not Available
Cristobalite - (14464-46-1)	Not Available	Not Available	Not Available
Crystalline silica (Quartz) (respirable) - (14808-60-7)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Regulated	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable **Sub Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable **Sub Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No;

14.6. Special precautions for user

Not Applicable

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Cristobalite

Proposition 65 - Carcinogens (>0.0%):

Crystalline silica (Quartz) (respirable)

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:



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

Section 16. Other information

Revision Date 08/25/2021

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

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