Ricobond® 1731HS
Safety Data Sheet

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Section 1: Identification

1.1. Product identifier

Product form : Mixture

Product Identifier(s) : Ricobond® 1731HS

1.2. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Elastomers

1.3. Details of the supplier of the safety data sheet

Total Petrochemicals & Refining USA, Inc.
Cray Valley Division
PO Box 674411
Houston,TX 77267-4411

For non-emergency product information:
Phone: 713-483-5000 or 1-877-871-2729
Email: product.stewardship@total.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (Toll Free USA & Canada) / 703-527-3887 (Multiple languages)
Total Petrochemicals & Refining USA, Inc.: 1-800-322-3462 (Language: English only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Combustible Dust

Self-heating substances and mixtures Category 1

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

Signal word (GHS-US) : **Danger**

Hazard statements (GHS-US) : **Self-heating; may catch fire**
May form combustible dust concentrations in air

Precautionary statements (GHS-US) : Keep cool. Protect from sunlight.
Wear eye protection, face protection, protective clothing, protective gloves.
Maintain air gap between stacks/pallets.
Store bulk masses greater than 400 kg / 881 lbs. at temperatures not exceeding 32 ºC / 90 ºF.
Store away from other materials.

2.3. Hazards not otherwise classified

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

2.5. Additional information

Based on conditions common to industrial workplace use of this product : Contact with skin or eyes with hot material may cause serious thermal burns.
Vapors formed when material is processed at high temperatures may be irritating to the eyes and upper respiratory tract.
Dust or particulates may cause mild respiratory tract and eye irritation.

Based on professional judgment, inconclusive testing, or sensitive individuals : Repeated or prolonged contact may cause slight irritation to the skin.

Section 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Where concentration of substances listed for this product are given in ranges, the exact percentage is being withheld as a trade secret.

Name	CAS-No.	%
1,3-Butadiene, homopolymer, maleated (Component)	179005-14-2	65 - 70
Amorphous Silica (Component)	7631-86-9	30 - 35

Section 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Gently wash with plenty of soap and water. If irritation persists, consult a doctor. Heated Material: For serious burns from heated material, get medical attention. In case of skin contact, immediately immerse in or flush with clean, cold water.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking, tears or redness persist.

First-aid measures after ingestion : Rinse mouth out with water. If necessary seek medical advice.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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

Treat symptomatically.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray or fog. Carbon dioxide. Foam. Dry chemical. Dry powder. Sand.

Unsuitable extinguishing media : Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the chemical

Fire hazard : Self-heating; may catch fire. When mixed with air and exposed to an ignition source, dust may burn in the open air.

Explosion hazard : Potential dust explosion hazard. When dust becomes airborne and is exposed to an ignition source, sufficient combustible/flammable dust may exist to burn in the open or explode if confined.

Hazardous decomposition products in case of fire : Carbon oxides (CO, CO2). Toxic fumes.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Avoid raising powdered materials into airborne dust, creating an explosion hazard. Apply aqueous extinguishing media carefully to prevent frothing/steam explosion. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Fight fire from safe distance and protected location.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Complete protective clothing. Self-contained breathing apparatus.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Emergency procedures for non-emergency personnel : Remove ignition sources. Ensure adequate ventilation. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures for emergency responders : No additional requirement.

6.2. Methods and material for containment and cleaning up

For containment : Sweep up or vacuum up the product.

Methods for cleaning up : Dispose of materials or solid residues at an authorized site.

6.3. Reference to other sections

See section 8. Exposure controls/personal protection.

Section 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid raising powdered material due to explosion hazard. Prevent the build-up of electrostatic charge. Use only non-sparking tools. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. The plastic packaging film used to secure bags of material on pallets can also develop static electricity -- remove packaging film in an area free from ignitable vapors/dust. Refer to the latest edition of the National Fire Protection Association (NFPA) 654 publication, "Standard for the Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries", for complete discussion on dust explosion prevention and control measures. Material creates a slipping hazard on hard surfaces. Clean up spills from walking surfaces immediately.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Electrical equipment should conform to the National Electric Code.

Storage conditions : Keep container tightly closed. Store in a dry place. Keep cool. Protect from sunlight. Store away from other materials. Maintain air gap between stacks and pallets. Keep away from combustible materials.

Storage temperature : 10 - 32 °C

Section 8: Exposure controls/personal protection

8.1. Occupational Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV, or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Ricobond® 1731HS		
USA ACGIH	ACGIH TWA (mg/m³)	10 mg/m³ (inhalable dust) 3 mg/m³ (respirable dust)
USA ACGIH	Remark (ACGIH)	Particulates, not otherwise classified
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable dust)
USA OSHA	Remark (OSHA)	Particulates, not otherwise classified

Amorphous silica (7631-86-9)		
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.8 mg/m³ This exposure limit is calculated from the equation, 80/(%SiO2), using a value of 100% SiO2. Lower values of % SiO2 will give higher exposure limits.
USA OSHA	Remark (OSHA)	See 21 CFR 1910.1000 Table Z-1-A

8.2. Exposure controls

Appropriate engineering controls : Provide readily accessible eye wash stations and safety showers. Ensure good ventilation of the work station.

Hand protection : Protective gloves. Do not use natural rubber gloves. Product used with solvents : wear thick (> 0.5 mm) nitrile gloves. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility, etc.) is noticed.

Eye protection : Safety glasses.

Skin and body protection : Wear fire/flame resistant/retardant clothing. Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Powder.

Color : Light gray.

Odor : Hydrocarbon. Mild.

Odor threshold : No data available

pH : Not applicable

Relative evaporation rate (butyl acetate=1) : No data available

Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	> 121 °C Cleveland open cup (COC)
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	1.3
Solubility	:	Water: practically insoluble
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available

9.2. Other information

No additional information available

Section 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Self-heating; may catch fire.

10.3. Possibility of hazardous reactions

May polymerize on exposure to temperature rise. Once initiated, the reaction generates enough heat to continue spontaneously.

10.4. Conditions to avoid

Avoid the build-up of electrostatic charge. High temperature. Avoid dust formation. Direct sunlight. Temperatures above 87 °C.

10.5. Incompatible materials

Strong acids. Strong oxidizing agents. Strong reducing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation. Ingestion. Skin and eye contact.

Acute toxicity : Not classified

Based on available data, the classification criteria are not met

Amorphous silica (7631-86-9)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 2.2 mg/l (Exposure time: 1 h)

1,3-Butadiene, homopolymer, maleated (179005-14-2)	
LD50 oral rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified

Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified

Based on available data, the classification criteria are not met

Respiratory or skin sensitization : Not classified

Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Amorphous silica (7631-86-9)	
IARC group	3 - Not classifiable
National Toxicology Program (NTP) Status	Not listed

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

Specific target organ toxicity – single exposure : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity – repeated exposure : Not classified
Based on available data, the classification criteria are not met

Aspiration hazard : Not classified
Not applicable

Potential Adverse human health effects and symptoms : Dust from this product may cause eye irritation. Dust from this product may cause respiratory irritation. Dust or particulates may cause mild respiratory tract and eye irritation. Product may cause mild skin irritation.

Section 12: Ecological information

12.1. Toxicity

Amorphous silica (7631-86-9)	
LC50 fish 1	5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)
EC50 other aquatic organisms 1	440 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Amorphous silica (7631-86-9)	
BCF fish 1	(no bioaccumulation expected)

1,3-Butadiene, homopolymer, maleated (179005-14-2)	
Log Pow	3.9

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Transfer to a safe disposal area in accordance with federal, state, and local regulations.

Product/Packaging disposal recommendations : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 14: Transport information

US Transport (DOT) for Bulk Shipments (Non-Bulk Shipments May Differ)

Transport document description : UN3088, Self-heating solid, organic, n.o.s. (polybutadiene resin), 4.2 , PGII

UN or NA Number : UN3088

Proper Shipping Name : Self-heating solid, organic, n.o.s.
(polybutadiene resin)

Primary Hazard Class : 4.2 - Spontaneously combustible material

Packing Group : PGII

Hazard labels :

Emergency Response Guide (ERG) Number : 135

Transport by sea (IMDG)

Transport document description	:	UN3088, SELF-HEATING SOLID, ORGANIC, N.O.S. (polybutadiene resin), 4.2, PGII
UN Number	:	UN3088
Proper Shipping Name	:	SELF-HEATING SOLID, ORGANIC, N.O.S.
Primary Hazard Class	:	4.2 - Substances liable to spontaneous combustion
Packing Group	:	PGII
Hazard labels (IMDG)	:	
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-J - SPILLAGE SCHEDULE Juliet - WETTED EXPLOSIVES AND CERTAIN SELF-HEATING SUBSTANCES
Stowage category (IMDG)	:	C

Air transport (IATA)

Transport document description	:	UN3088, Self-heating solid, organic, n.o.s. (polybutadiene resin) , 4.2, PGII
UN Number	:	UN3088
Proper Shipping Name	:	Self-heating solid, organic, n.o.s.
Primary Hazard Class	:	4.2 - Substances Liable to Spontaneous Combustion
Packing Group	:	PGII
Hazard labels (IATA)	:	

Section 15: Regulatory information

15.1. US Federal regulations

EPA TSCA Status

All components of this product are listed or exempt from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

SARA Section 313 Supplier Notification
This product contains no toxic chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SARA Section 311/312 Hazard Classes — Fire hazard
Reactive hazard

Export Control Classification Number (ECCN): EAR99 (No License Required)

15.2. International regulations

CANADA

No additional information available

National inventories

DSL (Canadian Domestic Sustances List)	All components are listed or exempted
ENCS (Japanese Existing & New Chemical Substances inventory)	All components are listed or exempted
IECSC (China Inventory of Existing Chemical Substances)	All components are listed or exempted

15.3. US State regulations

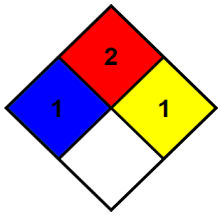
This product may contain California Proposition 65 substances at concentration levels below those required to be classified as hazardous by OSHA's Hazard Communication Standard (29 CFR 1910.1200). Contact Total Petrochemicals & Refining USA, Inc. if you need specific information regarding status of this product with regard to California Proposition 65.

Section 16: Other information

Training advice	:	Training staff on good practice. Manipulations are to be done only by qualified and authorized persons. Use good personal hygiene practices.
Other information	:	Unless agreed to in a separate written agreement with the Customer, Total Petrochemicals & Refining USA, Inc. makes no representations and disclaims all warranties, express or implied, with respect to biocompatibility and/or the suitability of this product for medical device applications including : (i) implantable devices intended for human or animal body, (ii) devices intended to be used in contact with internal body fluids, and (iii) devices intended to be used in contact with internal body tissues. If the Customer intends to use this product for any such application, it must first contact Total Petrochemicals & Refining USA, Inc. and establish agreed terms and conditions for such use.

NFPA (National Fire Protection Association)

NFPA health hazard	:	1
NFPA fire hazard	:	2
NFPA reactivity	:	1



Hazard Rating

Health	:	1
Flammability	:	2
Physical Hazard	:	1
Personal protection	:	See section 8 of SDS

US OSHA LABEL as specified under 29 CFR §1910.1200 (f)

Ricobond® 1731HS

Total Petrochemicals & Refining USA, Inc., Cray Valley Division
PO Box 674411
Houston, TX 77267-4411 USA
Tel. 713-483-5000 or 1-877-871-2729

Danger

Self-heating; may catch fire
May form combustible dust concentrations in air

Keep cool. Protect from sunlight.
Wear eye protection, face protection, protective clothing, protective gloves.
Maintain air gap between stacks/pallets.
Store bulk masses greater than 400 kg / 881 lbs. at temperatures not exceeding 32 ºC / 90 ºF.
Store away from other materials.

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