

RENSHAPE® 470 US

Version 1.1 Revision Date: 03/11/2022 SDS Number: 400001012633 Date of last issue: 10/10/2017
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Print Date 02/14/2023

SECTION 1. IDENTIFICATION

Product name : RENSHAPÉ 470 US

Manufacturer or supplier's detailsCompany name of supplier : Huntsman Advanced Materials Americas LLC
Address : P.O. Box 4980The Woodlands,
TX 77387
United States of America (USA)

Telephone : Non-Emergency: (800) 257-5547

E-mail address of person responsible for the SDS : Global_Product_EHS_AdMat@huntsman.com

Emergency telephone number : Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Article

Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Reaction Product

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
aluminium hydroxide	21645-51-2	30 - 50
silicon dioxide	7631-86-9	1 - 5
aluminium oxide	1344-28-1	1 - 5

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quartz (SiO₂)

14808-60-7

0.1 - 1

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.
- If inhaled : Call a physician or poison control centre immediately.
If inhaled, remove to fresh air.
Get medical attention if symptoms occur.
- In case of skin contact : Wash with water and soap as a precaution.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : None known.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Metal oxides
- Further information : No action shall be taken involving any personal risk or without suitable training.

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Special protective equipment : Wear self-contained breathing apparatus for firefighting if
for firefighters necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Use personal protective equipment.
protective equipment and : Avoid dust formation.
emergency procedures : Avoid breathing dust.
: Ensure adequate ventilation.
: Refer to protective measures listed in sections 7 and 8.

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 : Keep in suitable, closed containers for disposal.
containment and cleaning up

SECTION 7. HANDLING AND STORAGE

Advice on protection against : Avoid dust formation.
fire and explosion : Provide appropriate exhaust ventilation at places where dust
is formed.

Advice on safe handling : Avoid formation of respirable particles.
: Do not breathe vapours/dust.
: Avoid exposure - obtain special instructions before use.
: For personal protection see section 8.
: Smoking, eating and drinking should be prohibited in the
application area.
: Provide sufficient air exchange and/or exhaust in work rooms.
: 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.
: Keep in properly labelled containers.

Materials to avoid : For incompatible materials please refer to Section 10 of this
SDS.

Recommended storage : 36 - 104 °F / 2 - 40 °C
temperature

Further information on : Stable under normal conditions.
storage stability

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
aluminium hydroxide	21645-51-2	TWA (Respirable particulate matter)	1 mg/m ³ (Aluminium)	ACGIH
silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m ³ / %SiO ₂ (Silica)	OSHA Z-3
		TWA (Respirable dust)	0.05 mg/m ³ (Silica)	NIOSH REL
		TWA	6 mg/m ³ (Silica)	NIOSH REL
		PEL (respirable)	0.05 mg/m ³	OSHA CARC
aluminium oxide	1344-28-1	TWA (total dust)	15 mg/m ³	OSHA Z-1
		TWA (respirable fraction)	5 mg/m ³	OSHA Z-1
		TWA (Respirable particulate matter)	1 mg/m ³ (Aluminium)	ACGIH
		TWA (Total dust)	10 mg/m ³	OSHA P0
		TWA (respirable dust fraction)	5 mg/m ³	OSHA P0
quartz (SiO ₂)	14808-60-7	TWA (respirable)	10 mg/m ³ / %SiO ₂ +2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO ₂ +5	OSHA Z-3
		TWA (Respirable particulate matter)	0.025 mg/m ³ (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m ³	OSHA Z-1
		TWA (Respirable dust)	0.05 mg/m ³ (Silica)	NIOSH REL
		TWA	0.1 mg/m ³	OSHA P0

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		(respirable dust fraction)		
		PEL (respirable)	0.05 mg/m ³	OSHA CARC

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/m³.

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 : 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 : Board

Colour : grey

Odour : No data is available on the product itself.

Odour Threshold : No data is available on the product itself.

pH : substance/mixture is non-soluble (in water)

Melting point/freezing point : No data is available on the product itself.

Boiling point : No data is available on the product itself.

Flash point : Not applicable

Evaporation rate : No data is available on the product itself.

Flammability (solid, gas) : No data is available on the product itself.

Flammability (liquids) : No data is available on the product itself.

Upper explosion limit / Upper flammability limit : No data is available on the product itself.

Lower explosion limit / Lower flammability limit : No data is available on the product itself.

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Vapour pressure	:	No data is available on the product itself.
Relative vapour density	:	No data is available on the product itself.
Relative density	:	1.65 (68 °F / 20 °C)
Density	:	1.65 g/cm ³ (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	No data is available on the product itself.
Auto-ignition temperature	:	No data is available on the product itself.
Decomposition temperature	:	No data is available on the product itself.
Self-Accelerating decomposition temperature (SADT)	:	No data is available on the product itself.
Viscosity	:	No data is available on the product itself.
Explosive properties	:	No data is available on the product itself.
Oxidizing properties	:	No data is available on the product itself.
Particle size	:	No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Dust may form explosive mixture in air.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.
Hazardous decomposition products	:	aluminium oxide

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SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Components:****aluminium hydroxide:**

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

silicon dioxide:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): > 58.8 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

aluminium oxide:

Acute oral toxicity : LD50 (Rat, male and female): > 10,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Skin corrosion/irritation**Components:****silicon dioxide:**

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation**Components:****silicon dioxide:**

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
Method : OECD Test Guideline 405

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Respiratory or skin sensitisation

No data available

Germ cell mutagenicity**Components:****silicon dioxide:**

Genotoxicity in vitro : Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Application Route: Inhalation
Dose: 50 mg/m³
Result: negative

Carcinogenicity**Product:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Components:**silicon dioxide:**

Species : Rat, male and female
Application Route : Oral
Exposure time : 103 weeks
Dose : 1800 - 3200 mg/kg
Frequency of Treatment : 7 daily
Method : OECD Test Guideline 453
Result : negative

quartz (SiO₂):

Species : Rat
Application Route : Inhalation
Exposure time : 24 month(s)
Dose : 1 mg/m³
Frequency of Treatment : 6 hour
Result : positive
Target Organs : Lungs

Species : Mouse
Application Route : Inhalation
Exposure time : 24 month(s)
Dose : 1.95 mg/m³
Frequency of Treatment : 8 hour
Result : negative

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Carcinogenicity - Assessment : Positive evidence from human epidemiological studies (inhalation)

IARC Group 1: Carcinogenic to humans
quartz (SiO₂) 14808-60-7
(Silica dust, crystalline)

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP Known to be human carcinogen
quartz (SiO₂) 14808-60-7
(Silica, Crystalline (Respirable Size))

Reproductive toxicity**Components:****silicon dioxide:**

Effects on foetal development : Species: Mouse
Application Route: Oral
General Toxicity Maternal: NOAEL: 1,340 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

Species: Rabbit
Application Route: Oral
General Toxicity Maternal: NOAEL: 1,600 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

Species: Rat
Application Route: Oral
General Toxicity Maternal: NOAEL: 1,350 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

STOT - single exposure

No data available

STOT - repeated exposure**Components:****quartz (SiO₂):**

Exposure routes : inhalation (dust/mist/fume)
Target Organs : Lungs
Assessment : May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity**Components:****silicon dioxide:**

Species : Rat, male and female

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NOEC	:	4000 - 4500 mg/m3
Application Route	:	Ingestion
Test atmosphere	:	dust/mist
Exposure time	:	13 Weeks
Number of exposures	:	7 d
Method	:	OECD Test Guideline 413

Aspiration toxicity

No data available

Experience with human exposure

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****aluminium hydroxide:**

Toxicity to fish	:	LC50: > 10,000 mg/l
		Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates	:	EC50: > 10,000 mg/l
		Exposure time: 48 h

silicon dioxide:

Toxicity to fish	:	LL50 (Brachydanio rerio (zebrafish)): > 10,000 mg/l
		Exposure time: 96 h
		Test Type: static test
		Test substance: Fresh water
		Method: OECD Test Guideline 202

Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): >= 1,000 mg/l
		Exposure time: 24 h
		Test Type: static test
		Test substance: Fresh water
		Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants	:	EL50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l
		Exposure time: 72 h
		Test Type: static test
		Test substance: Fresh water
		Method: OECD Test Guideline 201

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aluminium oxide:

Toxicity to fish : LC50 (Fish): > 50 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : IC50 (Selenastrum capricornutum (green algae)): > 100 mg/l
Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects**Product:**

Ozone-Depletion Potential : 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).

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

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.
Dispose of as hazardous waste in compliance with local and
national regulations.
Dispose of contents/ container to an approved waste disposal
plant.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

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SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

Not regulated as dangerous goods

IATA-DGR

Not regulated as dangerous goods

IMDG-Code

Not regulated as dangerous goods

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 dangerous goods

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 311/312 Hazards : Carcinogenicity**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:aluminium oxide 1344-28-1 $\geq 1 - < 5\%$

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

California Prop. 65

WARNING: This product can expose you to chemicals including quartz (SiO₂), 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:

DSL : Exemptions from the obligation to register

AIIC : Exemptions from the obligation to register

NZIoC : Exemptions from the obligation to register

ENCS : Exemptions from the obligation to register

KECI : Exemptions from the obligation to register

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PICCS	: Exemptions from the obligation to register
IECSC	: Exemptions from the obligation to register
TCSI	: Exemptions from the obligation to register
TSCA	: This product meets the 40 CFR §710.3(d) article definition and is therefore exempt from the TSCA Inventory

Inventories

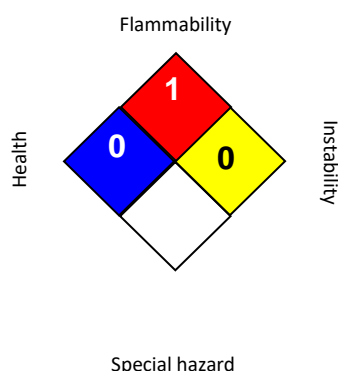
AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals

This product meets the 40 CFR §710.3(d) article definition and is therefore exempt from TSCA 5(a) requirements

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

This product meets the 40 CFR §710.3(d) article definition and is therefore exempt from TSCA 12(b) requirements

SECTION 16. OTHER INFORMATION
Further information
NFPA 704:

HMIS® IV:

HEALTH	*	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard

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ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA CARC	: OSHA Specifically Regulated Chemicals/Carcinogens
OSHA P0	: USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

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OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA CARC / PEL	:	Permissible exposure limit (PEL)
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average

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IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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