SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : AREMCO HIE-COAT 840-CX

Product code : HIE-COAT 840-CX.

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

High Temperature Black Ceramic Coating

Up to 1093°C

1.3. Details of the supplier of the safety data sheet

Registered company name : POLYTEC FRANCE.

Address : Technosud II - Bât A - 99 rue Pierre Semard.92320.CHATILLON.FRANCE.

Telephone : +33 (0)1 49 65 69 00. Fax : +33 (0)1 57 19 59 60.

info@polytec.fr

www.polytec.fr

1.4. Emergency telephone number : +33 (0)1.45.42.59.59.

Association/Organisation : INRS / ORFILA / www.centres-antipoison.net.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Additional labeling :

EUH210 Safety data sheet available on request.

2.3. Other hazards

The mixture does not contain substances classified as ‘Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 7631-86-9 EC: 231-545-4 SILICON DIOXIDE		[1]	15 <= x % <= 30
CAS: 1332-58-7 EC: 310-194-1 KAOLIN	GHS07 Wng STOT SE 3, H335	[1]	1.0 <= x % <= 10

(Full text of H-phrases: see section 16)

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

Other data :

This product is a liquid mixture and all powders are encapsulated.

This product is a colloidal suspension of amorphous silica.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In case of inhalation due to spray mist, machining dust or dried particulate, remove source of exposure andassure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR).

In the event of splashes or contact with eyes :

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.

Seek immediate medical attention, preferably with an ophthalmologist.

In the event of splashes or contact with skin :

Immediately wipe excess material off skin with a dry cloth then wash with soap and water for at least 5 minutes.

In the event of swallowing :

If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately.

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

Inhalation of product may aggravate existing chromic respiratory problems such as asthma, emphysema orAggravated by Exposure: bronchitis. Skin contact may aggravate existing skin disease.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

This material is compatible with all extinguishing media.

5.2. Special hazards arising from the substance or mixture

This material is non-combustible.

5.3. Advice for firefighters

Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face-piece and full chemical resistant protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. UseNIOSH approved respirator where mist occurs.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

No data available.

6.3. Methods and material for containment and cleaning up

Mop up and neutralize liquid, then discharge to sewer in accordance with federal, state and local regulations or permits. Flush area with water to complete cleanup. Exercise caution during neutralization as heat may be generated.

Prevent from entering sewers, rivers and groundwater.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

7.1. Precautions for safe handling

Always wash hands after handling.

Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Store in an area that is cool, dry, well ventilated, away from combustible material, and away from ignition sources. Keep containers closed. Store in clean plastic or stainless steel containers.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1332-58-7	2 (E,R) mg/m3			A4	

- Germany - AGW (BAuA - TRGS 900, 29/01/2018) :

CAS	VME :	VME :	Excess	Notes
7631-86-9		4 E mg/m³		

- France (INRS - ED984 :2016) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
1332-58-7	-	10	-	-	-	25

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1332-58-7	- ppm 2 mg/m³	- ppm - mg/m³			

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

SILICON DIOXIDE (CAS: 7631-86-9)

Final use:	**Workers.**
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	4 mg of substance/m3

8.2. Exposure controls

Appropriate engineering controls

Use with adequate ventilation. Keep containers closed.

Safety shower and eyewash fountain should be within direct access.

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Wear chemical goggles.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Wear impervious and resistant gloves.

- Body protection

Wear body-covering protective clothing.

- Respiratory protection

This product is not considered respirable in either the liquid or cured forms. However, if the cured product is polished, ground or chipped during processing, handling or use, powders may be released as airborne respirable particles. In these instances, appropriate personal protection equipment and local ventilation controls must be employed. If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved dust and mist respi

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Fluid liquid.
Color :	Black
Odour :	Odourless

Important health, safety and environmental information

pH :	Not stated. Slightly basic.
pH (aqueous solution) :	9.0 - 10.5
Boiling point/boiling range :	100°C
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).
Density :	1.30 - 1.40
Water solubility :	Soluble.
Viscosity :	75 - 150 cP
Melting point/melting range :	0°C
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.

9.2. Other information

VOC (g/l) :	0

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

None.

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No data available.

11.1.1. Substances

Acute toxicity :

SILICON DIOXIDE (CAS: 7631-86-9)

Oral route :	LD50 > 5000 mg/kg Species : Rat
Dermal route :	LD50 > 5000 mg/kg Species : Rabbit
Inhalation route (Dusts/mist) :	LC50 > 140 mg/m3 Species : Rat

Skin corrosion/skin irritation :

Not irritating.

Serious damage to eyes/eye irritation :

Not irritating.

Germ cell mutagenicity :

SILICON DIOXIDE (CAS: 7631-86-9)

	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Ames test (in vitro) :	Negative. With or without metabolic activation.

Reproductive toxicant :

SILICON DIOXIDE (CAS: 7631-86-9)

Study on fertility :	Species : Rat OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Specific target organ systemic toxicity - repeated exposure :

SILICON DIOXIDE (CAS: 7631-86-9)

Oral route :	C = 9000 mg/kg bodyweight/day Species : Rat Duration of exposure : 90 days OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Dermal route :	C = 1 mg/kg bodyweight/day Species : Rat Duration of exposure : 90 days

11.1.2. Mixture

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 7631-86-9 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

SILICON DIOXIDE (CAS: 7631-86-9)

Fish toxicity :	LC50 = 10000 mg/l Species : Danio rerio Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 1000 mg/l Species : Daphnia magna Duration of exposure : 24 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 > 10000 mg/l Species : Scenedesmus subspicatus Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

Amorphous silica dioxide is chemically and biologically inert.

KAOLIN (CAS: 1332-58-7)

Biodegradability :	no degradability data is available, the substance is considered as not degrading quickly.

SILICON DIOXIDE (CAS: 7631-86-9)

Biodegradability :	no degradability data is available, the substance is considered as not degrading quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Dispose in accordance with federal, state and local regulations and permits.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/1480 (ATP 13)

- Container information:

No data available.

- Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H335	May cause respiratory irritation.

Abbreviations :

DNEL : Derived No-Effect Level

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefahrdungsklasse (Water Hazard Class).
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.