NYCON

SAFETY DATA SHEET

1. Identification Product identifier Nycon-AR

Other means of identification

SDS number 5010

Synonym(s)

Alkali resistant glass fiber, AR-HP, AR-HD, AR-DM

Recommended use | Concrete / Mortar reinforcement fibers

Recommended restrictions None known

Manufacturer/Importer/Supplier/Distributor information

Nycon Corporation 300 Ben Fairless Drive Fairless Hills, PA 19030

USA

Emergency telephone: 1-800-456-9266 General Information: Phone: 1-215-310-2139

> fax: 215-310-2138 E-mail : sales@nycon.com

2. Hazard(s) identification

Physical hazards Not classified

Health hazards Not classified

Label elements

Hazard symbol

None

Signal word

Warning

Hazard Statement

May form combustible dust concentrations in the air

Prevention

Not assigned

Response

Not assigned

Storage

Not assigned

N/A

Disposal

Dispose of or recycle in accordance with local and/or state laws

Hazard(s) not otherwise classified

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Silicon dioxide	SiO ₂	99439-28-8	57%
Zirconium dioxide	ZrO ₂	1314-23-4	16.5%
Titanium dioxide	TiO ₂	13463-67-7	5%
Calcium oxide	CaO	1305-78-8	4.5%
Sodium oxide	Na ₂ O	1313-59-3	13%
Potassium oxide	K ₂ O	12136-45-7	3%
Alumina	Al ₂ O ₃	1344-28-1	<1%
Iron Oxide	Fe ₂ O ₃	1309-37-1	<.5%

Issue Date: 04-Jan-2016
Origin Date: 04-Jan-2016
Page 1 of 6
SDS 5010 (Nycon-AR)

Composition comments

Glass fibers are used as a reinforcing agent for many polymer products; to form a very strong and relatively lightweight fiber-reinforced polymer (FRP) composite material called glass-reinforced plastic (GRP), also popularly known as "fiberglass". This structural material product contains little air, is more dense than glass wool, and is an especially good thermal insulator.

4. First-aid Measures

Gargle with clean water about ten times. Also, blow your nose gently. seek medical attention if you feel some itching or irritation in the nose and/or throat.

Skin contact Do not rub or scratch the affected areas. Rubbing or scratching may cause harsh itching

Eye contact Proceed to the eyewash station and rinse untill product is removed from eye.

If swallowed, do not induse vomiting, shall vomiting occur naturally lean forward to prevent aspiration then rinse mouth.

Most important Inhalation May cause shortness of breath, tightness of the chest, a sore throat, and cough

symptoms/effects, Skin May cause redness and or itching

acute and delayed : Eyes May cause Itching, burning, redness, and tearing

Ingestion With large amounts ingested may cause gastrointestinal blockage

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat sympomatically.

General information Ensure that employees are aware of the materials involved, and take precautions to protect themselves

5. Fire-fighting measures

Suitable extinguishing media Dry Chemical, Water Spray, Foam, Carbon Dioxide. Avoid using direct streams of water on molten burning material.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical Carbon monoxide, carbon dioxide, original monomer other hydrocarbon oxidation

Special protective equipment and precautions for firefighting wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Use personal protective equipment (PPE).

Land Spill: Spilled material should be swept up and discarded. Comply with applicable federal, state and local regulations.

Methods and materials for containment and clean up Water Spill: Notify local authorities if spilled in waterway or sewer. Skim from surface of water if possible.

Waste Disposal: Reclaim where possible. Dispose of in accordance with local and state regulations. This is not an RCRA

Environmental precautions No speacial environmental precautions requied

7. Handling and storage

Origin Date: 04-Jan-2016

Issue Date: 04-Jan-2016 Page 2 of 6 Precautions for safe handling

Aviod inhalation or contact with the eyes or skin. if necessary, use gloves, safety glasses and dust mask. Glass fiber is readly charged with static electricity. static electricity can damage electronic components and cause explosions and fires. take measures to prevent the build up electrostatic charge.

Conditions for safe storage, including and imcompatibilities

Keep in tighly closed and dry containers. To maintain product quality, do not store in heat or direct sunlight. Keep from freezing. Routine housekeeping should be done to ensure that dust does not accumulate on surfaces.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limites noted for ingredient(s).

Biological limit values

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

Appropriate engineering controls

Provide mechanical ventilation; in general such ventilation should be provided at compounding/converting areas and at fabricating/ filling work stations where the material is heated. Local exhaust ventilation should be used over and in the vicinity of machinery involved in handling the molten material.

Individual protection measures, such as personal protective equpment

Eye/face protection Wear safety glasses in compliance with OSHA regulations

Hand protection Wear clean, long-sleeved, body-covering clothing.

Other N/A

Respiratory protection If handling at elevated temperatures and overexposure has been determined, an airrespirator is advised in the absence of proper environmental control.

Thermal hazards Wear appropriate thermal protective clothing, when necessary

General hygiene consideration Wash hands before breaks and immediately after handling product

9. Physical and chemical properties

Appearance

Physical state | Solid

Form Fibers

Color white

Odor No significant odor

Odor theshold

Not available

рН

Not available

Melting point/freezing point

704°C (1299.2°F)

Initial boiling point and boiling range

Not available

Flash point

Not available

Evaporation rate

Not available

Flammability (solid, gas)

Not available

Upper/lower flammability or explosive limits

Origin Date: 04-Jan-2016

Flammability limit - lower %

Not available

Flammability limit - lower %

Not available

Explosive limit - lower %

Not available

Issue Date: 04-Jan-2016 Page 3 of 6

Explosive limit - upper %	Not available
Vapor pressure/density	Not available
Specific gravity	2.8 (g/cm3 @ 23°C)
Relative density	Not available
Solubility(ies)	Insoluble
Partiton coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decompostion temperature	Not available
Viscosity	Not available

10. Stability and reactivity

Reactivity	Strong mineral acids.		
Chemical stabilty	Material is stable under normal conditions		
Possibility of hazardous reactions	No Dangourous reactions known under conditions of normal use		
Conditions to avoid	Avoid Exposure to open flame or temperaturesexceeding recommended temperatures. Avoid prolonged exposure to processing temperatures. Consult tech service for recommended process conditions. Do not store processed product hot.		
Incompatible materials	Strong mineral acids.		
Hazardous decomposition products	Thermal decomposition products may include a complex mixture of organic and inorganic compounds including but not limited to simple hydrocarbons, aldehydes, ketones, nitriles, inorganic oxides, halides, and possible trace amounts of hydrogen cyanide and other materials depending upon specific temperature, time, exposure, and other immediate environmental factors.		

Origin Date: 04-Jan-2016

11. Toxicological infomation			
Information on likely routed of exposure			
Ingestion	Ingestion is not likely route of exposeure. if ingested seek medical attention		
Inhalation	Remove person to fresh air. If irritation develops obtain medical attention.		
Skin contact	If irritation develops, flush with running water. Wash affected area with soap and water		
Eye contact	If irritation develops do not scrach or rub, flush with running water for 10-15 minutes.		
Symptoms related to the Physical, chemical and toxicological characteristics	See information on likely routes of exposure.		
Information on toxicological effects			
Acute toxicity	Not available		
Skin corrosion/irritation	Severe pruritus and irritation incurred from exposure to mechanical stimulus while on the job have been confirmed.		
Serious eye damage/eye irritation	Mechanical stimuli from exposure while on the job have been confirmed.		
Respiratory sensitization	Not available		
Skin sensation	Not available		
Germ cell mutagenicity	Not available		

Issue Date: 04-Jan-2016 Page 4 of 6

Carcinogenicity	International Agency for Research on Cancer (IARC): Group3 - NOT classifiable as to its carcinogenicity to humans.			
Reproductive toxicity	Not available			
Specific target organ toxicity single exposure	Temporary respiratory tract irritaion has been confirmed while exposed on the job, but disappears when sexposure is removed.			
Specific target organ toxicity repeat exposure	Not available			
Aspiration hazard	Not likely, due to the form of the product			
Chronic effects	None Known			
Further information	Exposure to powder or dust may be irritating to eyes, nose and throat.			
12. Ecological information				
Ecotoxicity	No known or expected ecotoxicity.			
Persistence and degradability	Not available			
Bioaccumulative potential	Not available			
Mobility in soil	Not available			
Other adverse effects	Not available			
13. Disposal considerations				
Disposal instructions	Dispose in accordance with all appicable regulations			
Waste from residue / unused product	Empty containers or liners may retain so pruduct residues. this material and its container must be disposed of in a safe manner			
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling			
14. Transport information				
DOT	Not regulated			
IATA	Not regulated			
IMDG	Not regulated			
15. Regulatory information				
US Federal Regulations	This Material is not Hazardous by OSHA Hazardous Communication Standard 29 CFR 1910.1200			
Superfund Amendments and Reauthoriztion A	ct of 1986 (SARA) (Y/N)			
Hazard categories : Immediate Hazard	No			
Delayed hazard	No			
Fire hazard	Yes			
Pressure hazard	No			
Reactivity hazazrd	No			
SARA 302 Extremely hazardous substance	No			
SARA 311/312 Hazardous Chemical	Yes			
16. Other information, including d	ate of preparation or last revision			
Issue date	Jan. 04, 2016			

Issue Date: 04-Jan-2016
Origin Date: 04-Jan-2016
Page 5 of 6
SDS 5010 (Nycon-AR)

Revision date

Jan. 04, 2016

	Version #	1.0				
	Futher information	Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.				
HMIS ratings : (Scale)	Health	0	Flammability	1	Physical hazard	0
NFPA ratings : (Scale)	Health	0	Flammability	1	Instability	0
List of abbreviations :		IARC - Internationa	al Agency for Research and C	ancer.		

DISCLAIMER: This Safety Data Sheet ("SDS") contains selected information about a specific NYCON CORPORATION product or group of products. It relates only to the identified uses and is based on information available as of the date hereof. Additional information may be needed to evaluate processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. THIS SDS WAS PREPARED PURSUANT TO GOVERNMENT REGULATIONS THAT IDENTIFY SPECIFIC TYPES OF INFORMATION TO BE PROVIDED HEREIN. IT IS THEREFORE NOT INTENDED AS, AND DOES NOT CONTAIN, A COMPLETE STATEMENT OF, AND DOES NOT CONSTUTUTE A REPRESENTATION, WARRANTY OR GUARANTY WITH REGARD TO, A PRODUCT'S CHARACTERISTICS, USES, QUALITY, MERCHANTABIITY, FITNESS FOR A PARTICUALR PURPOSE, OR THE SUITABLITY, SAFETY, EFFICACY, HAZARDS OR HEALTH EFFECTS OF THE PRODUCT, EXCEPT TO THE EXTENT REQUIRED BY THE RELEVENT LAW AND REGULATIONS. Purchasers and users of the products are repsonsible for determining that the product is suitable for the intended use and that their workers and the general public are advised of any risks resulting for such use. Nothing contained in the SDS shall be construed to modify any of the commercial terms pursuant to which the product was sold by NYCON CORPORATION including, but not limited to, terms and conditions addressing each party's respective rights and obligations with regard to warranties, remedies and indemnification.

Origin Date: 04-Jan-2016 Page 6 of 6