

SAFETY DATA SHEET

FOUR SEASONS

REVISION DATE: 8/17/17

SECTION I - PRODUCT AND COMPANY IDENTIFICATION





PRODUCT NAME : Four Seasons Acrylic Roof Patch & Sealant
PRODUCT GRADE/TYPE : **FSARP**
 SDS NUMBER : J253-AF-G-040
 PRODUCT USE : Caulk/Sealant
 MANUFACTURER : National Coatings Corporation
 1201 Calle Suerte
 Camarillo, CA 93012
www.nationalcoatings.com
 PRODUCT INFORMATION : 1-800-423-9557
 CHEMTREC NORTH AMERICA : 1-800-424-9300
 CHEMTREC INTERNATIONAL : 703-527-3887

SECTION II - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

ACUTE, TOXIC- CATEGORY 4
 Skin Corrosion-Sub-Category 1C
 Specific target organ toxicity (single exposure)-Category 3
 Hazardous to the aquatic environment, Acute, Category 1

GHS LABEL:

Hazard Category	Signal Word	Hazard Statement	Pictogram
Acute Toxicity, Category 4	Warning	H302-Harmful if swallowed	
Skin Corrosion/Irritation Category 1A-1C	Danger	H314-Causes severe skin and eye damage	
Specific Target Organ Toxicity, Cat.3	Danger	H335-May cause respiratory irritation or H336- May cause drowsiness or dizziness.	
Hazardous to aquatic environment, Acute, Category 1	Warning	H400 Very toxic to aquatic life	

GHS Precaution Phrases:

Hazard Category	Prevention	Response	Storage	Disposal
Acute Toxicity, Category 4	P264+P270	P301+P312 P330	None	P501-
Skin Corrosion/Irritation Category 1A-1C	P260 P264 P280	P301+P330+P331P303+P361+P353 P363 P304+P340 P310 P321 P305+P351+P338	P405	P501
Specific Target Organ Toxicity, Cat.3	P261 P271	P304+P340 P312	P403+P233 P405	P501
Hazardous to	P273	P391	None	P501-

aquatic environment, Acute, Category 1				
--	--	--	--	--

SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Weight %
Titanium dioxide (unbound only)	13463-67-7	1-3
Ethylene Glycol	107-21-1	0.5-2.0
Synthetic amorphous, pyrogenic silica	112945-52-5	1-3
2,2,4 trimethyl-1,3 pentanediol monoisobutyrate	25265-77-4	5-10
Ammonia-Aqueous Solution	1336-21-6	>1.0

The hazards of the listed titanium dioxide, crystalline silica (Quartz) from limestone and ZnO are for their powder unbound form. In the bound form and when used for application as a roof coating for which the products are designed, these ingredients are not hazardous.

GHS Pictograms	Hazard Statement
H302	Harmful if swallowed.
H314	Causes skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

P Statements:

Preventive:

P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P261: : Avoid breathing dust/fumes/gas/mist/vapours/spray. [As modified by IV ATP]

P264: Wash ... thoroughly after handling.

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

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection. [As modified by IV ATP]

Response precautionary statements[

P301: IF SWALLOWED:

P303: IF ON SKIN (or hair):

P304: IF INHALED:

P305: IF IN EYES:

P310: Immediately call a POISON CENTER/doctor/... [As modified by IV ATP]

P312: Call a POISON CENTER/ doctor/.../if you feel unwell. [As modified by IV ATP]

P321: Specific treatment (see ... on this label).

P330: Rinse mouth.

P331: Do NOT induce vomiting.

P338: Remove contact lenses if present and easy to do. Continue rinsing

P340: Remove person to fresh air and keep comfortable for breathing.

P341: [Deleted by IV ATP]

P342: If experiencing respiratory symptoms:

P350: [Deleted by IV ATP]

P351: Rinse cautiously with water for several minutes.

P353: Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse. [As modified by IV ATP]

P391: Collect spillage.

P301+312: IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell. [As modified by IV ATP]

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+352: IF ON SKIN: Wash with plenty of water/... [As modified by IV ATP]

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. [As modified by IV ATP]

P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. [As modified by IV ATP]

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

Storage precautionary statements

P405: Store locked up.

P403+233: Store in a well ventilated place. Keep container tightly closed.

Disposal:

P501: Dispose of content/container...in accordance with local/regional/national/ international regulation (to be specified)

SECTION IV – FIRST AID MEASURES

Eye Contact: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from eyeball to ensure thorough rinsing. Get immediate medical attention.

Skin Contact: Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get immediate medical attention.

Inhalation: Nasal irritation, headache, dizziness, nausea, vomiting. Heart palpitations, breathing difficulty, cyanosis, tremors, weakness, red flushing of face, irritability. Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth to mouth resuscitation. Get medical attention immediately.

Ingestion : If ingested, do not induce vomiting unless directed to do so by a medical personnel. Get medical attention.

SECTION V – FIRE-FIGHTING MEASURES

Suitable Extinguishing Media : Use dry chemical, foam or carbon dioxide to extinguish fire.

Specific hazards arising from the chemical: Dangerous when exposed to heat or flame. Will form flammable or explosive mixtures with air at room temperature. Irritating or toxic substances may be emitted upon thermal decomposition. Thermal decomposition products may include oxides of carbon and nitrogen. Vapor or gas may spread to distant ignition sources and flash back. Vapors or gas may accumulate in low areas. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Containers may explode in heat of fire. Vapors may concentrate in confined areas. Liquid will float and may reignite on the surface of water.

Special protective action for fire-fighters: Water should be used to cool fire-exposed containers, structures and to protect personnel. Use water to dilute spills and flush them away from sources of ignition. Do not flush down sewers or other drainage systems. Exposed fire-fighters must wear NIOSH approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment.
Keep people away from and upwind of spill/leak.

Material can create slippery conditions.

Environmental Precautions: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods of Cleaning up: Contain spills immediately with inert materials (e.g. sand, warth).
Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

SECTION VII - HANDLING AND STORAGE

Precautions for safe handling:

Avoid breathing dust, vapor or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Use personal protective equipment in handling and observe personal hygiene after use of the product.

Conditions for safe storage : **Storage :** **DO NOT FREEZE.** Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage Period: 12 months

Keep container closed when not in use. Protect from freezing.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters:

Component	CAS #	Regulation	Type of Listing	Occupational Exposure Limits
Titanium dioxide	13463-67-7	JSOH OELs (05 2009	TWA	1 mg/m3 (Respirable dust)
		US ACGIH (2011)	TWA	4 mg/m3 (Total dust)
Ethylene Glycol	1314-13-2	ACGIH	TWA	10 mg/m3
		OSHA	STEL	2 mg/m3
Synthetic amorphous, pyrogenic silica	112945-52-5	ACGIH-PNOS	PEL	10 mg/m3
		OSHA	TWA	5 mg/m3 (fume, respirable fraction)
Glycidoxypropyl trimethoxysilane	2530-83-8	DCC OEL	TWA	15 mg/m3 (Total dust)
		DCC OEL	STEL	5 PPM
2-n-Octyl-4-isothiazolin-3-one	26530-20-1	NIOSH	TWA	10
		Rohm &Haas	TWA	0.2 mg/m3
Aqua Ammonia	1336-21-6	Rohm &Haas	TWA	0.6 mg/m3
		ACGIH	TWA-8hr	25 ppm 18 mg/m3
		OSHA_Trans NIOSH	STEL	35 ppm 27 mg/m3
			PEL	50 ppm 35 mg/m3
			STEL-15 mins	35 ppm 27 mg/m3
			-10 hr	25 ppm 18 mg/m3
			TWA	300 ppm IDLH

Engineering Controls: : Mechanical local exhaust ventilation at point of containment release.

Protective Measures : Employees should wash their hands and face before eating, drinking or using tobacco products. Educate and train employees in the safe use and handling of this product.
EMERGENCY SHOWERS AND EYE WASH STATIONS SHOULD BE AVAILABLE.

Eye/face Protection : Safety glasses with side-shields.

Skin Protection : Impervious (Neoprene gloves)

Respiratory Protection : Use only with ventilation to keep levels below exposure guidelines reported in this document. If not sure, and/or not able to monitor, use Stae or federally approved supplied air-respirator. Wear suitable respirator (MSHA/NIOSH approved or equivalent) where exposure limits are exceeded.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous white liquid
Odour:	Slight amine odor
Odour threshold:	Not available
pH:	7.4-7.7
Melting point/freezing point:	0°C (32°F) similar to water
Boiling Point/boiling range:	100°C (212°F) similar to water
Flash Point:	Not applicable (water based product), however, solid material will support combustion if water has been evaporated.
Evaporation Rate:	slower than ether
Flammability:	Not available
Upper/Lower Flammability or explosive limits:	Not available
Vapor Pressure:	22.7 mm Hg at 20°C (68.°F) similar to water
Vapor density	Not available
Relative density:	8.8-9.1 #/gal (1.04g/cc)
Solubility: in water	Soluble
Partition Coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not determined
VOC Content g/l:	100

Note: The above data are typical values and must not be construed as a specification.

SECTION X – STABILITY AND REACTIVITY

Reactivity:	Non-reactive
Chemical Stability:	Stable
Possibility of hazardous reactions:	None known.
Conditions/Materials to avoid:	Keep from freezing/No known materials to avoid
Incompatible Materials:	Strong oxidizing agents.
Hazardous decomposition:	By Thermal decomposition: carbon monoxide, carbon dioxide, Oxides of nitrogen (NOx), other potentially toxic fumes, dense black smoke.

SECTION XI – TOXICOLOGICAL INFORMATION

Acute Toxicity:

Component	Acute Oral	Acute Dermal	Acute Inhalation
Titanium Dioxide	LD50 rat >5000 mg/kg	LD50:>5000 mg/kg (Rabbit)	LC50/4h/rat (dust/mist):>6.82 mg/l, 4 h (Rat)
Ethylene Glycol	LD50 rat =4700 mg/kg LD50 mouse=5500 mg/kg	LD50, Rabbit=9350 uL/kg Draize, test, rabbit, eye: 500	

		mg/24h Mild; 100 mg/1H Mild; 1440 mg/6H Moderate	
Aqua Ammonia	LD 50 (ammonia) (Oral/Rat) 350 mg/kg LC 50 inhalation rat 2000 ppm/4h.	Corrosive!	Corrosive!

Acute Toxicity:

Glycidoxipropyl trimethoxysilane:

Acute Oral toxicity: LD50 (Rat): 7.5 ml/kg

Assessment: The substance or mixture has no acute oral toxicity .

Remarks: Based on test data.

Acute Inhalation Toxicity: LC50 (Rat): >5.3mg/l

Exposure Time : 4h Test atmosphere: dust/mist Remarks: Based on test data

Acute Dermal Toxicity: LD50 (Rabbit): 3.97 ml/kg Based on test data.

Skin/Eye Irritation:

Titanium Dioxide Rabbit, Exposure Time, 24 h, Non-Irritating

Mixture Not available

Mutagenicity:

Titanium Dioxide Genetic Toxicity in Vitro: Ames: negative (Salmonella typhimurium, Metabolic Activation:
with/without)

Genetic Toxicity in Vivo: Drosophila SLRL test: negative (Drosophila melanogaster

Mixture Not available

Carcinogenicity:

Titanium dioxide (Ti-Pure, DuPont) Rat, Male/Female, inhalation-According to IARC, several rat inhalation and intratracheal installation studies using titanium dioxide have shown increases in benign and malignant lung tumors.

Based upon all study results, DuPont scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experience in the workplace.

Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

From occupational sources) (Group 1-Carcinogenic to humans)

Mixture Not available

Ammonia Tested on microorganisms and animals-may affect genetic material

May cause cancer (tumorigenic) based on animal data (ammonia-anhydrous)

Ethylene Glycol

Not classifiable as a human carcinogen (aerosol)

Sensitization:

Titanium dioxide Dermal: non-sensitizer (Guinea pig, Maximization Test), non-sensitizer (Human, Patch Test)

Repeated Dose toxicity: 28 days, Inhalation: NOAEL: 35mg/m3, (Rat

Short term-not possible; long term-yes; products of degradation are less toxic than the product itself

Reproductive toxicity, STOT, Aspiration hazard- Not available for components and mixture in the products listed.

Other Toxicological Information:

*Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

SECTION XII – ECOLOGICAL INFORMATION

Ecotoxicity:

Titanium dioxide Aquatic Toxicity: 96 hr LC50: Fathead minnow > 1,000 mg/l; LC50: > 1000 mg/l (Golden Orfe (Leuciscus idus), 48 hours) ;
Acute Toxicity to Aquatic invertebrates: EC50 > 3 mg/l (Water Flea (Daphnia Magna))
Toxicity to Microorganisms : EC50 > 10,000 mg/l, (Pseudomonas fluorescens, 24 h)

Aqua Ammonia In water-LC50: 0.1 ppm (24 hrs) (Rainbow trout) ; 8.2 mg/l 96 hrs (Fathead minnow; 0.1 ppm (48 hrs) (Bluegill)

Ethylene Glycol Fish: Rainbow trout: LC50 = 41000 mg/l; 96 hr; Unspecified Bluegill/Sunfish: LC50 = 27500-41000 mg/L; 96 hr.; Unspecified Goldfish: LC50 = 27500-41000 mg/L; 96 hr; Unspecified Flea: LC50 = 46300 mg/L; 48 hr.; Unspecified Ria: Phytobacterium phosphoreum: EC50 = 620 mg/L (salt water) LC50 = > 100 ppm/48 hr.

Environmental: On soil, substance may leach to groundwater and biodegrade rapidly. In water, substance is not expected to bioconcentrate in marine life.

Persistence and Degradability, Bioaccumulative Potential, Mobility in Soil: Not available for other components and mixtures in the products listed

SECTION XIII – DISPOSAL INFORMATION

Environmental Precautions:

Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Waste Disposal Method:

Waste disposal should be in accordance with existing federal, state and local environmental laws.

Empty Container Precautions:

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

SECTION XIV – TRANSPORT INFORMATION

UN Number : Not applicable

UN proper Shipping Name : Not regulated

Transport Hazard Class : Not Regulated

Packing Group : Not Applicable

Land Transport (DOT) : Not Regulated

Sea Transport (IMDG) : Not Regulated

Air Transport (ICAO/IATA) : Not Regulated

Special Precautions : No data available

SECTION XV – REGULATORY INFORMATION

United States TSCA Inventory (US.TSCA): All components of this product are in compliance with the inventory listing requirement of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

CERCLA Information (40CFR302.4):

SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA ‘Hazard Categories’ promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

SARA TITLE III, Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund and Reauthorization Act of 1986 and 40 CR part 372:

Chemical Name	CAS#
Ethylene Glycol	1314-13-2
Aqua Ammonia	1336-21-6

WHMIS : No information

Proposition 65 : This product contains a chemical known to cause cancer or reproductive toxicity:

Component	CAS #
Titanium dioxide (airborne, unbound particles of respirable size)	(none), several substances for single listing

SECTION XVI -

Legend:

Acronym	Meaning
ACGIH	American Conference of Governmental Hygienists
OSHA	Occupational Safety Health Administration
SARA	Superfund Amendment Reauthorization Act
TRI	Toxic Release Inventory
GHS	Globally Harmonized System (of Classification and Labeling of Chemicals)
DOT	Department of Transportation
IMDG	International Maritime Dangerous Goods
ICAO	International Civil Aviation Organization
IATA	International Air Transport Association

The information in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. The information relates only to the specific material designated and may not be valid for such material used in combination with or any other material in any process, unless specified in the test.

Version #: GHS-040

Revision Date: 8/17/17

Supersedes Last Revision: n/a

This SDS adheres to the standards and regulatory requirements of the United States and has been written under the guidance of the Globally Harmonized System of Classification and Labeling of Chemicals.

© 2006 National Coatings Corporation. All Rights Reserved