



Safety Data Sheet Quad-Cure SM

Revision Date:
3 September, 2026

Section 1. Identification

Product identifier

Product Identity

Quad-Cure SM

Other means of identification

Quad-Cure Winter

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

Two-component sodium silicate resin system for rehabilitation and protection of water and wastewater infrastructure.

Details of the supplier of the safety data sheet

Company Name

United Felts
450 College Drive
Martinsville, VA 24112

Emergency

24 hour Emergency Telephone No.

Emergency Contact 276-658-1904

Customer Service:

276-658-1904

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Acute toxicity(oral), category 4;H302	Harmful if swallowed.
Acute toxicity(inhalation), category 4;H332	Harmful if inhaled.
Skin corrosion/irritation category 2;H315	Causes skin irritation.
Serious eye damage / eye irritation, category 2A;H319	Causes serious eye irritation.
Skin sensitizer category 1;H317	May cause an allergic skin reaction.
Respiratory sensitization, category 1;H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carcinogen, category 2;H351	Suspected of causing cancer.
Specific target organ toxicity, Single exposure category 3;H335	May cause respiratory irritation.
Specific target organ toxicity, repeated exposure category 2;H373	May cause damage to organs through prolonged or repeated exposure. Specific Target Organs: (respiratory system)

Label elements

**Danger**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

[Prevention]

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P233 Keep container tightly closed.

P260 Do not breathe dust, fume, mist, vapors or spray.

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.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, eye protection, and face protection.

P284 In case of inadequate ventilation, wear respiratory protection.

[Response]

P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P308+313 IF exposed or concerned: Get medical advice or attention.

P314 Get medical advice or attention if you feel unwell.

P330 Rinse mouth.

P333+313 If skin irritation or a rash occurs: Get medical advice or attention.

P337+313 If eye irritation persists: Get medical advice or attention.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER, doctor or physician.

P362+364 Take off contaminated clothing and wash it before reuse.

[Storage]

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

P405 Store locked up.

[Disposal]

P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

This product contains no PBT/vPvB/vPvM chemicals.

This product contains no endocrine disrupting chemicals.

Does NOT contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per the US EPA PFASMASTER combined list of PFAS chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Diphenylmethanediisocyanate (isomers and homologues) CAS Number: 9016-87-9 Synonyms: Isocyanic acid, polymethylenepolyphenylene ester, Polymeric Diphenylmethane Diisocyanate, Reaction product of formaldehyde, polymer with aniline and phosgene, polymethylenpolyfenylisokyanát	65 - 85	Carcinogen, category 2;H351 Acute toxicity(inhalation), category 4;H332 Specific target organ toxicity, Single exposure category 3;H335 Specific target organ toxicity, repeated exposure category 2;H373 Skin corrosion/irritation category 2;H315 Serious eye damage / eye irritation, category 2;H319 Respiratory sensitization, category 1;H334 Skin sensitizer category 1;H317	No data available
Reaction products of Phosphoryl trichloride and 2-Methyloxirane CAS Number: 1244733-77-4 Synonyms: TCPP, tris(2-chloro-1-methylethyl) phosphate, Phosphorous oxychloride, reaction products with propylene oxide	10 - 30	Carcinogen, category 2;H351 Acute toxicity(oral), category 4;H302 Aquatic toxicity (chronic), category 3;H412	No data available
4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with 2,4'-diisocyanatodiphenylmethane, 2,2'-methylened CAS Number: 158885-25-7 Synonyms: No available information	3 - 7	Carcinogen, category 2;H351 Acute toxicity(inhalation), category 4;H332 Specific target organ toxicity, Single exposure category 3;H335 Specific target organ toxicity, repeated exposure category 2;H373 Skin corrosion/irritation category 2;H315 Serious eye damage / eye irritation, category 2;H319 Respiratory sensitization, category 1;H334 Skin sensitizer category 1;H317	No data available

The actual concentration or concentration range is withheld as a trade secret.

*PBT/vPvB - PBT, vPvM or vPvB-substance.

The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.
Most important symptoms and effects, both acute and delayed	
Overview	No specific symptom data available. Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure. Treat symptomatically. See section 2 for further details.
Inhalation	Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Eyes	Causes serious eye irritation.
Skin	May cause an allergic skin reaction. Causes skin irritation.
Ingestion	Harmful if swallowed.

Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.

Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Keep container tightly closed.

Do not breathe dust, fume, mist, vapors or spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. ----

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental precautions

Do not allow spills to enter drains or waterways.

Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Precautions should be taken to minimize exposure to atmospheric humidity or water as carbon dioxide may be formed which, in closed containers can result in pressurization. Care should be taken when re-opening partly used containers.

See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons applying this preparation.

Incompatible materials: No available information

See section 2 for further details. - [Storage]

Specific end use(s)

Two-component sodium silicate resin system for rehabilitation and protection of water and wastewater infrastructure.

Section 8. Exposure controls / personal protection

Control parameters

Exposure Limits

CAS No.	Ingredient	Source	Value
9016-87-9	Diphenylmethanediisocyanate (isomers and homologues)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
158885-25-7	4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with 2,4'-diisocyanatodiphenylmethane, 2,2'-methylened	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
1244733-77-4	Reaction products of Phosphoryl trichloride and 2-Methyloxirane	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Protective safety glasses recommended

Skin

Avoid skin contact. Protective gloves recommended.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State

Liquid

Color

No available information

Odor

No available information

Odor threshold

No available information

Melting point / freezing point

No available information

Initial boiling point and boiling range

No available information

Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: No available information

Upper Explosive Limit: No available information

Flash Point

No available information

Auto-ignition temperature

No available information

Decomposition temperature

No available information

pH	No available information
Kinematic viscosity	No available information
Solubility in Water	No available information
Partition coefficient n-octanol/water (Log Kow)	No available information
Vapor pressure (Pa)	No available information
Relative Density	No available information
Vapor Density	No available information

Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information
Other information	
No other relevant information.	

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under normal circumstances.

Possibility of hazardous reactions

No available information

Conditions to avoid

Avoid high temperatures and contact with incompatible material

Incompatible materials

No available information

Hazardous decomposition products

No hazardous decomposition data available.

Section 11. Toxicological information

Acute toxicity

Based on the properties of the isocyanate content of this product, respiratory exposure may cause acute irritation and/or sensitization of the respiratory system resulting in asthmatic symptoms, wheezing and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to airborne concentrations of isocyanates well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability.

ATE (Oral) 420 mg/kg. 0.0 % of the mixture consists of an ingredient of unknown toxicity to this route of entry.

ATE (dermal) Not Applicable. 0.0 % of the mixture consists of an ingredient of unknown toxicity to this route of entry.

ATE (Inhalation) 11 mg/L/4hr (vapor). 0.0 % of the mixture consists of an ingredient of unknown toxicity to this route of entry.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Diphenylmethanediisocyanate (isomers and homologues) - (9016-87-9)	49,000.00, Rat - Category: NA	9,400.00, Rabbit - Category: NA	No data available.	No data available.	No data available.
Reaction products of Phosphoryl trichloride and 2-Methyloxirane - (1244733-77-4)	63.00, Rat - Category: 3	> 2,000.00, Rabbit - Category: NA	7.00, Rat - Category: 3	No data available.	No data available.
4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with 2,4'-diisocyanatodiphenylmethane, 2,2'-methylene - (158885-25-7)	No data available.	No data available.	No data available.	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
9016-87-9	Diphenylmethanediisocyanate (isomers and homologues)	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 3
		ACGIH	No Established Limit
158885-25-7	4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with 2,4'-diisocyanatodiphenylmethane, 2,2'-methylene	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	No
		ACGIH	No Established Limit
1244733-77-4	Reaction products of Phosphoryl trichloride and 2-Methyloxirane	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	No
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2A	Causes serious eye irritation.
Respiratory sensitization	1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	2	Suspected of causing cancer.
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-single exposure (3)	3	May cause respiratory irritation.
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

Possible routes of entry:

Inhalation, ingestion, skin contact, and skin absorption.

Symptoms and effects, both acute and delayed:

No specific symptom data available.

Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.

Treat symptomatically.

Inhalation

Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Eyes

Causes serious eye irritation.

Skin May cause an allergic skin reaction. Causes skin irritation.
Ingestion Harmful if swallowed.

Section 12. Ecological information

Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Diphenylmethanediisocyanate (isomers and homologues) - (9016-87-9)	1,000.00, Danio rerio	1,000.00, Daphnia magna	No data available.
Reaction products of Phosphoryl trichloride and 2-Methyloxirane - (1244733-77-4)	56.20, Fish (Piscis)	131.00, crustacea	82.00, Algae
4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with 2,4'-diisocyanatodiphenylmethane, 2,2'-methylened - (158885-25-7)	No data available.	No data available.	No data available.

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

No available information

Mobility in soil

No available information

Results of PBT and vPvB assessment

This product contains no PBT/vPvB/vPvM chemicals.

Other adverse effects

No available information

Section 13. Disposal considerations

Waste treatment methods

Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	Not Regulated	Not Regulated	Not Regulated
UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
Transport hazard class(es)	Class: Not Applicable Sub Class: Not Applicable	Class: Not Applicable Sub Class: Not Applicable	Class: Not Applicable Sub Class: Not Applicable
Packing group	Not Applicable	Not Applicable	Not Applicable
Environmental hazards			

IMDG Marine Pollutant: No;

Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA’s Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0158885-25-7	4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with 2,4'-diisocyanatodiphenylmethane, 2,2'-methylened	No		
0009016-87-9	Diphenylmethanediisocyanate (isomers and homologues)	Yes	XU	ACTIVE
1244733-77-4	Reaction products of Phosphoryl trichloride and 2-Methyloxirane	No		

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Diphenylmethanediisocyanate (isomers and homologues)

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Revision Date 3 September, 2026

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Disclaimer: The information presented herein is supplied as a guide to those who handles or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

End of Document