

SAFETY DATA SHEET

Revision Date: 10/05/2016

Print Date: 10/5/2016

SDS Number: R0702646

Version: 1.10

 RezosoTM 4609 Crepe, Release and Adhesive Agent
TM Trademark, Solenis or its subsidiaries or affiliates,
 registered in various countries
 422942

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION
Product identifier

 Trade name : RezosoTM 4609
 Crepe, Release and Adhesive Agent
TM Trademark, Solenis or its subsidiaries or affiliates,
 registered in various countries

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet Solenis LLC 500 Hercules Road Wilmington, Delaware 19808 United States of America RegulatoryRequestsNA@solenis.com	Emergency telephone number 1-844-SOLENIS (844-765-3647) / 606-329-5705 Product Information 1-844-SOLENIS (844-765-3647)
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SECTION 2. HAZARDS IDENTIFICATION
GHS Classification

Skin irritation : Category 2

Eye irritation : Category 2A

GHS label elements


Hazard pictograms :



Signal Word : Warning

 Hazard Statements : Causes skin irritation.
 Causes serious eye irritation.

 Precautionary Statements : **Prevention:**
 Wash skin thoroughly after handling.

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Wear eye protection/ face protection.
Wear protective gloves.

Response:

IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
QUATERNARY AMIDE	254504001-5854	Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 50.00 - < 60.00

Trade Secret Composition - conceal identity + concentration

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If breathed in, move person into fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.

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Wash contaminated clothing before re-use.

- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
Causes skin irritation.
Causes serious eye irritation.
- Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO₂)
Dry chemical
- 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 : carbon dioxide and carbon monoxide
Nitrogen oxides (NO_x)
Sulphur oxides
Hydrocarbons
organic compounds
Alcohols
ethers
Ketones
- Specific extinguishing methods :

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Product is compatible with standard fire-fighting agents.


- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- 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 containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
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.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection : Wear as appropriate:
 Impervious clothing
 Safety shoes
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
 Discard gloves that show tears, pinholes, or signs of wear.
 Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Wash hands before breaks and at the end of workday.
 When using do not eat or drink.
 When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid


Colour : amber

Odour : mild, fatty odour

Odour Threshold : No data available

pH : 6.6, 1 %


Melting point/freezing point : No data available

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Boiling point/boiling range : No data available
 Flash point : > 200.1 °F / > 93.4 °C
 Method: Pensky Martens closed cup
 Value for Component
 Evaporation rate : No data available
 Flammability (solid, gas) : No data available
 Upper explosion limit : No data available
 Lower explosion limit : No data available
 Vapour pressure : negligible
 Relative vapour density : negligible
 Relative density : No data available
 Density : 0.96 - 1.04 g/cm³ (23 °C)
 Solubility(ies)
 Water solubility : emulsifiable
 Solubility in other solvents : No data available
 Partition coefficient: n-
 octanol/water : No data available
 Thermal decomposition : No data available
 Viscosity
 Viscosity, dynamic : 314 mPa.s (23 °C)
 Viscosity, kinematic : No data available
 Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
 Chemical stability : Stable under recommended storage conditions.

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Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat
 temperatures above 150 degrees F (66 °C)
 Heat, flames and sparks.
 Exposure to sunlight.
 Exposure to moisture

Incompatible materials : isocyanates
 Strong acids
 Strong bases
 Strong oxidizing agents
 UV light.

Hazardous decomposition products : carbon dioxide and carbon monoxide
 Nitrogen oxides (NOx)
 Sulphur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
 Skin contact
 Eye Contact
 Ingestion

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Causes skin irritation.

Product:

Result: Severely irritating to skin

Remarks: see user defined free text

Remarks: May cause skin irritation and/or dermatitis.

Components:


QUATERNARY AMIDE:

Result: Severely irritating to skin

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

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Result: Irritating to eyes
 Remarks: see user defined free text

Components:

QUATERNARY AMIDE:

Result: Severely irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Components:

QUATERNARY AMIDE:

- Genotoxicity in vitro : Test Type: Ames test
 Test species: Salmonella typhimurium
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 471
 Result: negative
- : Test Type: Ames test
 Test species: Escherichia coli
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 471
 Result: negative
- : Test Type: Chromosome aberration test in vitro
 Test species: Human lymphocytes
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 473
 Result: negative
- : Test Type: In vitro mammalian cell gene mutation test
 Test species: mouse lymphoma cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 476
 Result: positive
- Genotoxicity in vivo : Test Type: unscheduled DNA synthesis assay
 Test species: Rat (male)
 Cell type: Liver cells
 Application Route: oral
 Method: OECD Test Guideline 486
 Result: negative

Carcinogenicity

Not classified based on available information.

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Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)); 0.31 mg/l
 Exposure time: 48 h
 Test Type: static test
 Method: OECD Test Guideline 202
 GLP: no

Ecotoxicology Assessment

Acute aquatic toxicity : Acute aquatic toxicity Category 1; Very toxic to aquatic life.

Chronic aquatic toxicity : Chronic aquatic toxicity Category 1; Very toxic to aquatic life with long lasting effects.

Components:

QUATERNARY AMIDE:

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Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): 2.2 mg/l
Exposure time: 96 h

LC 50 (Pimephales promelas (fathead minnow)): 0.93 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC 50 (Water flea (Daphnia magna)): 0.22 mg/l
Exposure time: 48 h

Persistence and degradability

Components:

No data available

Bioaccumulative potential

Components:

No data available

Mobility in soil

Components:

No data available

Other adverse effects

No data available

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life with long lasting effects.

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

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Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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U.S. DOT - ROAD

UN 3082	Environmentally hazardous substance, liquid, n.o.s. (QUATERNARY AMIDE)	9		III	
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U.S. DOT - RAIL

UN 3082	Environmentally hazardous substance, liquid, n.o.s. (QUATERNARY AMIDE)	9		III	
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U.S. DOT - INLAND WATERWAYS

UN 3082	Environmentally hazardous substance, liquid, n.o.s. (QUATERNARY AMIDE)	9		III	
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TRANSPORT CANADA - ROAD

UN 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMIDE)	9		III	
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TRANSPORT CANADA - RAIL

UN 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMIDE)	9		III	
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TRANSPORT CANADA - INLAND WATERWAYS

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UN	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMIDE)	9	III
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INTERNATIONAL MARITIME DANGEROUS GOODS

UN	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMIDE)	9	III	MARINE POLLUTANT:(QUATERNARY AMIDE)
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	3082	Environmentally hazardous substance, liquid, n.o.s. (QUATERNARY AMIDE)	9	III
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	3082	Environmentally hazardous substance, liquid, n.o.s. (QUATERNARY AMIDE)	9	III
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (QUATERNARY AMIDE)	9	III
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*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	yes
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

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Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
DIETHYL SULFATE	64-67-5	10	142857.142857

SARA 311/312 Hazards : Acute Health Hazard

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Component(s)SARA 313

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AUSTR : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECL : On the inventory, or in compliance with the inventory

PHIL : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Inventories

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

Registration: Trade Secret

Chemical name	Identification number
QUATERNARY AMIDE	254504001-5854

SECTION 16. OTHER INFORMATION


Further information

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Full text of H-Statements referred to under section 3.

H315 Causes skin irritation.
 H318 Causes serious eye damage.

Further information

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Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by the Solenis Environmental Health and Safety Department.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value


TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

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FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
 WHMIS : Workplace Hazardous Materials Information System