



## SECTION 1. IDENTIFICATION

### Product identifier

Trade name

: Chargepac™ 9403  
COAGULANT  
™ Trademark, Solenis or its subsidiaries or affiliates,  
registered in various countries

### Recommended use of the chemical and restrictions on use

|                                                                                                                                                                                                       |                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Details of the supplier of the safety data sheet</b><br>Solenis LLC<br>2475 Pinnacle Drive<br>Wilmington, Delaware 19803<br>United States of America (USA)<br><br>RegulatoryRequestsNA@solenis.com | <b>Emergency telephone number</b><br>1-844-SOLENIS (844-765-3647)<br><br><b>Product Information</b><br>Contact your local Solenis representative |
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## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with 29 CFR 1910.1200

Corrosive to metals : Category 1

Serious eye damage : Category 1

### GHS label elements

Hazard pictograms

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Signal word

: Danger

Hazard statements

: H290 May be corrosive to metals.  
H318 Causes serious eye damage.

Precautionary statements

: **Prevention:**  
P234 Keep only in original container.  
P280 Wear eye protection/ face protection.

**Response:**  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.  
P390 Absorb spillage to prevent material damage.

**Storage:**  
P406 Store in corrosive resistant container with a resistant inner liner.

#### Other hazards

None known.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Components

| Chemical name                      | CAS-No.   | Classification                         | Concentration (%) |
|------------------------------------|-----------|----------------------------------------|-------------------|
| POLYALUMINUM CHLORIDE<br>HYDROXIDE | 1327-41-9 | Met. Corr. 1; H290<br>Eye Dam. 1; H318 | >= 40 - < 50      |

Actual concentration is withheld as a trade secret

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### SECTION 4. FIRST AID MEASURES

General advice

: Move out of dangerous area.  
Consult a physician.  
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

: First aid is not normally required. However, it is

recommended that exposed areas be cleaned by washing with soap and water.

|                                                             |                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| In case of eye contact                                      | : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.<br>Continue rinsing eyes during transport to hospital.<br>Remove contact lenses.<br>Protect unharmed eye.                                                                 |
| If swallowed                                                | : Obtain medical attention.<br>Do NOT induce vomiting.<br>Do not give milk or alcoholic beverages.<br>Never give anything by mouth to an unconscious person.<br>If symptoms persist, call a physician.                                                                        |
| Most important symptoms and effects, both acute and delayed | : Causes serious eye damage.<br>Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:<br>stomach or intestinal upset (nausea, vomiting, diarrhea)<br>irritation (nose, throat, airways) |
| Notes to physician                                          | : No hazards which require special first aid measures.                                                                                                                                                                                                                        |

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## SECTION 5. FIREFIGHTING MEASURES

|                                               |                                                                                                                                                                                       |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media                  | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Water spray<br>Foam<br>Carbon dioxide (CO <sub>2</sub> )<br>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                 | : hydrogen chloride                                                                                                                                                                   |
| Specific extinguishing methods                | : 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.                                                                                                                      |

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## 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.  
Comply with all applicable federal, state, and local regulations.
- 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 : Keep in suitable, closed containers for disposal.

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## SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Do not breathe vapours/dust.  
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.
- Further information on storage stability : No decomposition if stored and applied as directed.

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

| Components                         | CAS-No.   | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis     |
|------------------------------------|-----------|----------------------------------|---------------------------------------------------|-----------|
| POLYALUMINUM CHLORIDE<br>HYDROXIDE | 1327-41-9 | TWA                              | 2 mg/m <sup>3</sup><br>(Aluminium)                | OSHA P0   |
|                                    |           | TWA                              | 2 mg/m <sup>3</sup><br>(Aluminium)                | NIOSH REL |

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 and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.  
Maintain eye wash station in immediate work area.

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.  
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.

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#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : clear

Odour : odourless

Odour Threshold : No data available

pH : < 2.2 - 2.8

Melting point/freezing point : -4 °F / -20 °C

Boiling point/boiling range : 221 °F / 105 °C

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Self-ignition : No data available



Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1.22 - 1.26

Density : 1.22 - 1.26 g/cm<sup>3</sup>

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

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

Conditions to avoid : excessive heat

Incompatible materials : aluminum  
Bases  
brass  
Copper  
galvanized metals  
Iron  
steel  
Zinc

Hazardous decomposition products : Hydrogen chloride gas

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Not classified based on available information.

### Components:

#### **POLYALUMINUM CHLORIDE HYDROXIDE:**

Acute oral toxicity : LD 50 (Rat): 12,800 mg/kg

### Skin corrosion/irritation

Not classified based on available information.

### Components:

#### **POLYALUMINUM CHLORIDE HYDROXIDE:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Not irritating to skin

### Serious eye damage/eye irritation

Causes serious eye damage.

### Product:

Remarks : May cause irreversible eye damage.

### Components:

#### **POLYALUMINUM CHLORIDE HYDROXIDE:**

Result : Corrosive 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.

#### **Carcinogenicity**

Not classified based on available information.

**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 on OSHA's list of regulated carcinogens.



**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.

**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

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish : LC50 (Fathead minnow (*Pimephales promelas*)): > 1,000 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: static test  
Test substance: An aqueous solution was tested.  
Method: OECD Test Guideline 203  
Remarks: experimental result

NOEC (Fathead minnow (*Pimephales promelas*)): 1,000 mg/l  
End point: mortality  
Exposure time: 96 h  
Test Type: static test  
Test substance: An aqueous solution was tested.  
Method: OECD Test Guideline 203  
Remarks: experimental result

Toxicity to daphnia and other aquatic invertebrates : LC 50 (*Daphnia magna* (Water flea)): > 1,000 mg/l  
End point: mortality  
Exposure time: 48 h  
Test Type: static test  
Test substance: An aqueous solution was tested.  
Method: OECD Test Guideline 202  
GLP: no  
Remarks: experimental result

EC50 (*Daphnia magna* (Water flea)): > 1,000 mg/l  
End point: Immobilization  
Exposure time: 48 h





Test Type: static test  
Test substance: An aqueous solution was tested.  
Method: OECD Test Guideline 202  
GLP: no  
Remarks: experimental result

EC50 (Daphnia magna (Water flea)): > 1,000 mg/l  
End point: Immobilization  
Exposure time: 24 h  
Test Type: static test  
Test substance: An aqueous solution was tested.  
Method: OECD Test Guideline 202  
GLP: no  
Remarks: experimental result

NOEC (Daphnia magna (Water flea)): 1,000 mg/l  
End point: Immobilization  
Exposure time: 48 h  
Test Type: static test  
Test substance: An aqueous solution was tested.  
Method: OECD Test Guideline 202  
GLP: no  
Remarks: experimental result

#### **Ecotoxicology Assessment**

Acute aquatic toxicity : Not classified based on available information.  
Chronic aquatic toxicity : Not classified based on available information.

#### **Persistence and degradability**

No data available

#### **Bioaccumulative potential**

No data available

#### **Mobility in soil**

No data available

#### **Other adverse effects**

No data available

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### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal methods**

Waste from residues : Do not dispose of waste into sewer.  
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.  
Do not re-use empty containers.

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## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### IATA-DGR

UN number : UN 3264  
Proper shipping name : Corrosive liquid, acidic, inorganic, n.o.s. (POLYALUMINUM CHLORIDE HYDROXIDE)  
Class : 8  
Packing group : III  
Packing instruction (cargo aircraft) : 856  
Packing instruction (passenger aircraft) : 852

#### IMDG-Code

UN number : UN 3264  
Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (POLYALUMINUM CHLORIDE HYDROXIDE)  
Class : 8  
Packing group : III  
EmS Code : F-A, S-B  
Marine pollutant : no

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### National Regulations

#### 49 CFR

UN number : UN 3264  
Proper shipping name : Corrosive liquid, acidic, inorganic, n.o.s. (POLYALUMINUM CHLORIDE HYDROXIDE)  
Class : 8  
Packing group : III  
ERG Code : 154  
Marine pollutant : no

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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## SECTION 15. REGULATORY INFORMATION

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

#### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

#### **SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

#### **SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Corrosive to metals  
Serious eye damage or eye irritation

**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.

### **California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

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

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

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

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

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

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

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

TSCA : All substances listed as active on the TSCA inventory

### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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## SECTION 16. OTHER INFORMATION

### **Further information**

**Full text of H-Statements**

H290 : May be corrosive to metals.  
H318 : Causes serious eye damage.

**Full text of other abbreviations**

Eye Dam. : Serious eye damage  
Met. Corr. : Corrosive to metals  
NIOSH REL : USA. NIOSH Recommended Exposure Limits  
OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -  
1910.1000  
NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour  
workday during a 40-hour workweek  
OSHA P0 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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 provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This SDS has been prepared by the Solenis Environmental Health and Safety Department.

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