



Rehydragel™ CG

Safety Data Sheet

According to U.S. Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations and according to Canada's Hazardous Products Regulation, February 11, 2015.

Revision Date: 03/29/2017

Date of Issue: 05/01/2015

Version: 3.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixtures

Product Name: Rehydragel™ CG, Aluminum Hydroxide Compressed Paste

Intended Use of the Product

Pharmaceutical Ingredient. Vaccine Adjuvant, Protein Separations. For Professional Use Only.

Name, Address, and Telephone of the Responsible Party

Manufacturer

CHEMTRADE LOGISTICS INC.

155 Gordon Baker Road

Suite 300

Toronto, Ontario M2H 3N5

For SDS Info: (416) 496-5856

www.chemtradelogistics.com

Emergency Telephone Number

Emergency Number :

Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300

INTERNATIONAL: +1-703-741-5970

Chemtrade Emergency Contact: (866) 416-4404

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification

Not classified

Label Elements

GHS Labeling

No labeling applicable

Other Hazards

If allowed to dry, product may produce mechanical irritation of the eyes, skin, and respiratory system. If spilled product presents a slip hazard.

Unknown acute toxicity

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product Identifier	%*	GHS Ingredient Classification
Water	(CAS-No.) 7732-18-5	83 - 87	Not classified
Aluminum hydroxide (Al(OH) ₃)	(CAS-No.) 21645-51-2	13 - 17	Not classified

Full text of H-phrases: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact: Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

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Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

Most Important Symptoms and Effects Both Acute and Delayed

General: None expected under normal conditions of use.

Inhalation: May cause irritation to the respiratory tract.

Skin Contact: May cause mild skin irritation.

Eye Contact: May cause minor eye irritation.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None known.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Product is not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition. Do not allow run-off from fire-fighting to enter drains or water courses.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Oxides of aluminum.

Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe vapor, mist or spray.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area. Stop leak if safe to do so.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container.

Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

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Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Specific End Use(s)

Pharmaceutical Ingredient. Vaccine Adjuvant, Protein Separations. For Professional Use Only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure, but are not required. Product to be handled under strictly controlled conditions. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Safety glasses. Insufficient ventilation: wear respiratory protection. Protective clothing.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: White Paste, Gelatinous Precipitate
Odor	: None
Odor Threshold	: Not available
pH	: 6 - 8
Evaporation Rate	: Not available
Melting Point	: Not applicable
Freezing Point	: Not available
Boiling Point	: Not applicable
Flash Point	: Not Flammable
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Specific Gravity	: 1.01 - 1.25
Solubility	: Negligible
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Shear Thinning

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable under normal conditions.

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Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

pH: 6 - 8

Eye Damage/Irritation: Not classified

pH: 6 - 8

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Effects After Inhalation: May cause irritation to the respiratory tract.

Symptoms/Effects After Skin Contact: May cause mild skin irritation.

Symptoms/Effects After Eye Contact: May cause minor eye irritation.

Symptoms/Effects After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None known.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Aluminum hydroxide (Al(OH) ₃) (21645-51-2)	
LD50 Oral Rat	> 5000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Not classified.

Persistence and Degradability

Rehydragel™ CG, Aluminum Hydroxide Compressed Paste	
Persistence and Degradability	Not established.

Bioaccumulative Potential

Rehydragel™ CG, Aluminum Hydroxide Compressed Paste	
Bioaccumulative Potential	Not established.

Mobility in Soil

Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

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Not regulated for transport according to: US DOT, IMDG, IATA, and Canada's TDG.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Chemical Name (CAS No.)	CERCLA RQ	EPCRA 304 RQ	SARA 302 TPQ	SARA 313
Aluminum hydroxide (Al(OH) ₃) (21645-51-2)	Not applicable	Not applicable	Not applicable	No

SARA 311/312

Not present

US TSCA Flags

Not present

US State Regulations

California Proposition 65

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Aluminum hydroxide (Al(OH) ₃) (21645-51-2)	No	No	No	No

State Right-To-Know Lists

Aluminum hydroxide (Al(OH) ₃) (21645-51-2)
U.S. - Massachusetts - Right To Know List - No
U.S. - New Jersey - Right to Know Hazardous Substance List - No
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List - No
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances - No
U.S. - Pennsylvania - RTK (Right to Know) List - No

Canadian Regulations

Aluminum hydroxide (Al(OH) ₃) (21645-51-2)
Listed on the Canadian DSL (Domestic Substances List)
Not listed on the Canadian NDSL (Non-Domestic Substances List)

International Inventories/Lists

Chemical Name (CAS No.)	Australia AICS	Turkey CICR	Korea ECL	EU EINECS	EU ELINCS	EU SVHC	EU NLP	Mexico INSQ
Aluminum hydroxide (Al(OH) ₃) (21645-51-2)	Yes	Yes	Yes	Yes	No	No	No	Yes

Chemical Name (CAS No.)	China IECSC	Japan ENCS	Japan ISHL	Japan PDSCL	Japan PRTR	Philippines PICCS	New Zealand NZIOC	US TSCA
Aluminum hydroxide (Al(OH) ₃) (21645-51-2)	Yes	Yes	No	No	No	Yes	Yes	Yes

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 03/29/2017

Revision Summary

Section	Change	Date Changed
2	Language modified	03/15/2017
6	Language modified	03/15/2017
8	Language modified	03/15/2017
10	Language modified	03/15/2017
13	Language modified	03/15/2017

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Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

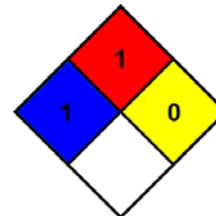
GHS Full Text Phrases:

NFPA 704

NFPA Health Hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA Fire Hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA Reactivity Hazard : 0 - Material that in themselves are normally stable, even under fire conditions.



HMIS Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 1 Slight Hazard

Physical : 0 Minimal Hazard

PPE See Section 8

Abbreviations and Acronyms

AICS – Australian Inventory of Chemical Substances
ACGIH – American Conference of Governmental Industrial Hygienists
AIHA – American Industrial Hygiene Association
ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor
BEI - Biological Exposure Indices (BEI)
CAS No. - Chemical Abstracts Service number
CERCLA RQ - Comprehensive Environmental Response, Compensation, and Liability Act - Reportable Quantity
CICR - Turkish Inventory and Control of Chemicals
DOT – 49 CFR – US Department of Transportation – Code of Federal Regulations Title 49 – Transportation.
EC50 - Median effective concentration
ECL - Korea Existing Chemicals List
EINECS - European Inventory of Existing Commercial Chemical Substances
ELINCS - European List of Notified Chemical Substances
EmS - IMDG Emergency Schedule Fire & Spillage
ENCS - Japanese Existing and New Chemical Substances Inventory
EPA – Environmental Protection Agency
EPCRA 304 RQ – EPCRA 304 Extremely Hazardous Substance Emergency Planning and Community Right-to-Know-Act – Reportable Quantity
ERAP Index – Emergency Response Assistance Plan Quantity Limit
ERC50 - EC50 in Terms of Reduction Growth Rate
ERG code (IATA) - Emergency Response Drill Code as found in the International Civil Aviation Organization (ICAO)
ERG No. - Emergency Response Guide Number
HCCL - Hazard Communication Carcinogen List
HMIS – Hazardous Materials Information System
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association – Dangerous Goods Regulations
IDLH - Immediately Dangerous to Life or Health
IECSC - Inventory of Existing Chemical Substances Produced or Imported in China
IMDG - International Maritime Dangerous Goods Code
INSQ - Mexican National Inventory of Chemical Substances
ISHL - Japan Industrial Safety and Health Law
LC50 - Median Lethal Concentration
LD50 - Median Lethal Dose
LOAEL - Lowest Observed Adverse Effect Level
LOEC - Lowest-observed-effect Concentration
Log Pow - Octanol/water Partition Coefficient
NFPA 704 – National Fire Protection Association - Standard System for the Identification of the Hazards of Materials for Emergency Response
NIOSH - National Institute for Occupational Safety and Health
NLP - Europe No Longer Polymers List
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
NZIOC - New Zealand Inventory of Chemicals
OEL - Occupational Exposure Limits
OSHA – Occupational Safety and Health Administration
PEL - Permissible Exposure Limits
PICCS - Philippine Inventory of Chemicals and Chemical Substances
PDSCL - Japan Poisonous and Deleterious Substances Control Law
PPE – Personal Protective Equipment
PRTR - Japan Pollutant Release and Transfer Register
REL - Recommended Exposure Limit
SADT - Self Accelerating Decomposition Temperature
SARA - Superfund Amendments and Reauthorization Act
SARA 302 - Section 302, 40 CFR Part 355
SARA 311/312 - Sections 311 and 312, 40 CFR Part 370 Hazard Categories
SARA 313 - Section 313, 40 CFR Part 372
SRCL - Specifically Regulated Carcinogen List
STEL - Short Term Exposure Limit
SVHC – European Candidate List of Substance of Very High Concern
TDG – Transport Canada Transport of Dangerous Goods Regulations
TLM - Median Tolerance Limit
TLV - Threshold Limit Value
TPQ - Threshold Planning Quantity
TSCA – United States Toxic Substances Control Act
TWA - Time Weighted Average
WEEL - Workplace Environmental Exposure Levels

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Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.



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