

## Section 1 Identification

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**Aldon  
Corporation**

221 Rochester Street  
Avon, NY 14414  
(585) 226-6177

**CHEMTREC 24 Hour Emergency  
Phone Number (800) 424-9300**  
For laboratory and industrial use only.  
Not for drug, food or household use.

**Product** CALCIUM AMMONIUM NITRATE FERTILIZER

**Synonyms** Nitric Acid, Ammonium Calcium Salt

## Section 2 Hazards identification

**Signal word:** WARNING

**Pictograms:** GHS03

**Target organs:** None known



**GHS Classification:**

Oxidizing solid (Category 3)

**GHS Label information: Hazard statement(s):**

H272: May intensify fire; oxidizer.

**Precautionary statement(s):**

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220: Keep away from clothing/incompatible/combustible materials.

P221: Take any precaution to avoid mixing with combustibles/acids/oxidizers.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

**Hazards not otherwise classified:**

Health hazards not otherwise classified (HHNOC) - Not Known

Physical hazards not otherwise classified (PHNOC) - Not Known

## Section 3 Composition / information on ingredients

Chemical Name	CAS #	%	EINECS
Calcium ammonium nitrate fertilizer	15245-12-2	100%	239-289-5

## Section 4 First aid measures

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire fighting measures

**Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

## Section 6 Accidental release measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.



## Section 1 Identification

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**CHEMTREC 24 Numéros De Téléphone De  
Secours D'Heure (800) 424-9300**  
Pour l'usage industriel et de laboratoire seulement.  
Pas pour l'usage de drogue, de nourriture ou de ménage.

**Produit** ENGRAIS AU NITRATE CALCIUM AMMONIUM

**Synonymes** Acide nitrique, ammonium sel de calcium

## Section 2 Identification des dangers

**Mention d'avertissement:** AVERTISSEMENT

**Pictogrammes:** GHS03

**Les organes cibles:** Aucun connu



**Classification par le GHS:**

Oxidizing solid (Catégorie 3)

**Renseignements sur l'étiquette GHS: Mention de danger(s):**

H272: Peut aggraver un incendie; comburant.

**Déclarations de précaution(s):**

P210: Tenir à l'écart la chaleur/des étincelles/des flammes nues/des surfaces chaudes. Ne pas fumer.

P220: Tenir à l'écart des vêtements / incompatibilités / matières combustibles.

P221: Prendre toutes précautions pour éviter de mélanger avec des matières combustibles / acides / oxydants.

P280: Porter des gants de protection / des vêtements de protection / un équipement de protection des yeux / du visage.

P370+P378: En cas d'incendie: Utiliser un produit chimique sec, mousse anti-alcool, dioxyde de carbone ou eau pulvérisée pour l'extinction.

P501: Éliminer le contenu / récipient dans une agence agréée d'élimination chimique conformément à la réglementation locale / régionale / nationale.

**Dangers non classés autrement:**

Dangers pour la santé non classés ailleurs (HHNOC) - pas connu

Dangers physiques non classés autrement (PHNOC) - pas connu

## Section 3 Composition / information sur les ingrédients

Nommé Chimique	# CAS	%	EINECS
Engrais au nitrate calcium ammonium	15245-12-2	100%	239-289-5

## Section 4 Premiers soins

**INGESTION:** Appeler un médecin ou un centre antipoison immédiatement. Provoquer le vomissement seulement si elle est informée par le personnel compétent médicaux. Ne jamais rien donner par la bouche à une personne inconsciente.

**INHALATION:** Sortir au grand air. Si elle ne respire pas, pratiquer la respiration artificielle. Si la respiration est difficile, donner de l'oxygène. Obtenir des soins médicaux.

**CONTACT AVEC LES YEUX:** Vérifier et enlever les lentilles de contact. Rincer abondamment à l'eau pendant au moins 15 minutes, en soulevant les paupières inférieures et supérieures de temps en temps. Obtenez une attention médicale immédiate.

**ABSORPTION PAR LA PEAU:** Enlever les vêtements contaminés. Rincer soigneusement avec du savon doux et d'eau. En cas d'irritation, consulter un médecin.

## Section 5 Mesures à prendre en cas d'incendie

**Moyens d'extinction:** Utilisez des supports adaptés pour éteindre le feu à l'appui.

**Actions de protection pour les sapeurs-pompiers:** En cas d'incendie, porter un appareil respiratoire NIOSH / MSHA approuvé autonome et un équipement complet de protection. Utiliser un jet d'eau pour maintenir incendie refroidir les conteneurs exposés.

**Dangers spécifiques:** En cas d'incendie, des gaz irritants et très toxiques peuvent être générés par la décomposition thermique ou la combustion.

## Section 6 Mesures à prendre en cas de déversement accidentel

**Précautions personnelles:** Évacuer le personnel vers la zone sûre. Utiliser un équipement de protection personnelle comme indiqué dans la Section 8. Assurer une ventilation adéquate.

**Précautions environnementales:** Éviter tout ruissellement vers les égouts pluviaux et les fossés qui aboutissent aux voies navigables.

**Confinement et de nettoyage:** Retirer toutes les sources d'ignition. Balayez ou nettoyez à l'aspirateur vers le haut et placez dans un récipient approprié pour la disposition appropriée. Laver la zone de déversement avec du savon et de l'eau.

**Précautions pour la manutention en toute sécurité:** Lire l'étiquette sur le contenant avant d'utiliser. Ne pas porter de lentilles cornéennes lorsque vous travaillez avec des produits chimiques. Tenir hors de portée des enfants. Éviter tout contact avec les yeux, la peau et les vêtements. Ne pas inhaler les poussières. Utiliser avec une ventilation adéquate. Éviter l'ingestion. Bien se laver après la manipulation. Retirer et laver les vêtements avant de les réutiliser.

**Conditions de stockage:** Stocker dans un endroit frais, sec et bien aéré, loin des substances incompatibles. Substance loin des sources d'allumage.

## Section 8 Contrôle de l'exposition / protection individuelle

Limites d'exposition:	Nommé Chimique	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Particules non classées / réglementé	Aucun établi	TWA: 5 mg/m <sup>3</sup> Fraction respirable	Aucun établi

**Contrôles d'ingénierie:** Les installations d'entreposage ou d'utilisation de ce matériel doit être équipé d'une douche oculaire et une douche de sécurité et le matériel d'extinction d'incendie. Le personnel doit porter des lunettes de sécurité, des lunettes, ou un écran facial, une blouse de laboratoire ou tablier, des gants protecteurs appropriés. Utiliser une ventilation adéquate pour maintenir les concentrations atmosphériques faible.

**Protection respiratoire:** Aucun ne devrait être nécessaire dans le laboratoire normal manipulant aux températures ambiantes. Si les conditions poussiéreuses prévaloir, travailler dans la hotte ou de porter un masque respiratoire approuvé NIOSH / MSHA.

## Section 9 Propriétés physiques et chimiques

<b>Apparence:</b> Solide. Poudre	<b>Taux d'évaporation ( = 1):</b> Données non disponibles	<b>Coefficient de partage:</b> Données non disponibles
<b>Odeur:</b> Données non disponibles	<b>Inflammabilité (solide / gaz):</b> Données non disponibles.	<b>Auto-inflammation:</b> Données non disponibles
<b>Seuil de l'odeur:</b> Données non disponibles.	<b>Limites d'explosivité: Bas / Max:</b> Données non disponibles	<b>Température de décomposition:</b> Données non disponibles
<b>pH:</b> Données non disponibles	<b>Pression de vapeur (mm Hg):</b> Données non disponibles	<b>Viscosité:</b> Données non disponibles.
<b>Point de fusion / congélation:</b> 94°C (201.2°F)	<b>Densité de vapeur (Air = 1):</b> Données non disponibles	<b>Formule moléculaire:</b> Ca·xH <sub>3</sub> N·xHNO <sub>3</sub>
<b>Point d'ébullition:</b> Données non disponibles	<b>Densité relative (gravité spécifique):</b> 1.1	<b>Poids moléculaire:</b> Inconnue
<b>Point d'éclair:</b> Données non disponibles	<b>Solubilité (s):</b> 144 g/100 mL l'eau	

## Section 10 Stabilité et réactivité

**Stabilité chimique:** Stable

**Polymérisation dangereuse:** N'aura pas lieu.

**Conditions à éviter:** Les températures excessives et d'autres sources d'allumage. Matières combustibles et inorganique.

**Matières incompatibles:** Comburant fortes, l'agents réducteurs, matériaux organiques.

**Produits dangereux de décomposition:** Oxydes d'azote.

## Section 11 Données toxicologiques

**Toxicité aiguë:** Oral-rat LD50: 2000 mg/kg

**La corrosion de la peau et l'irritation:** Données non disponibles

**Des lésions oculaires graves / irritation:** Données non disponibles

**Respiratoire ou sensibilisation de la peau:** Données non disponibles

**Mutagenicité des cellules germinales:** Données non disponibles

**Cancérogène:** Données non disponibles

NTP: Aucun composant de ce produit présent à des niveaux supérieurs ou égaux à 0,1% n'a été identifié comme cancérogène reconnu ou présumé par NTP.

IARC: Aucun composant de ce produit présent à des niveaux supérieurs ou égaux à 0,1% n'a été identifié comme cancérogène probable, possible ou confirmé par IARC.

OSHA: Aucun composant de ce produit présent à des niveaux supérieurs ou égaux à 0,1% n'a été identifié comme cancérogène ni comme cancérogène possible par OSHA.

**Reproductive toxicity:** Données non disponibles

**STOT-exposition unique:** Données non disponibles

**STOT-une exposition répétée:** Données non disponibles

**Risque d'aspiration:** Données non disponibles

**Effets d'une surexposition:**

Inhalation: Peut être nocif par inhalation.

Ingestion: Peut être nocif en cas d'ingestion.

Peau: Peut causer une irritation de la peau.

Yeux: Provoque une légère irritation des yeux.

**Les signes et les symptômes de l'exposition:** Au meilleur de notre connaissance les propriétés chimiques, physiques et toxicologiques n'ont pas été à fond étudiées. Les données spécifiques ne sont pas disponibles. Procédures appropriées d'exercice pour réduire au minimum des risques.

**Informations complémentaires:** RTECS #: Non disponibles

## Section 12 Données écologiques

**Toxicité pour les poissons:** Pas de données disponible

**Toxicité pour les daphnies et autres invertébrés aquatiques:** Pas de données disponible

**Toxicité pour les algues:** Pas de données disponible

**Persistance et dégradabilité:** Pas de données disponible

**Potentiel de bioaccumulation:** Pas de données disponible

**Mobilité dans le sol:** Pas de données disponibles

**Évaluation PBT et vPvB:** Pas de données disponibles

**Autres effets indésirables:** Un danger pour l'environnement ne peut pas être exclu dans l'éventualité d'une manipulation ou d'élimination.

## Section 13 Données sur l'élimination

Ces lignes directrices sont destinées à l'élimination de la disposition d'un catalogue de taille seules les quantités. Les règlements fédéraux peuvent s'appliquer aux contenants vides. Des réglementations nationales et / ou local peut être différent. Éliminer conformément à toutes les réglementations locales, provinciales et fédérales ou d'un contrat avec une agence élimination des produits chimiques sous licence.

## Section 14 Informations relatives au transport

**Numéro UN / NA:** UN1477

**Nom d'expédition:** Nitrates, inorganique, n.o.s., (Engrais au nitrate calcium ammonium)

**Classe de danger:** 5.1

**Groupe d'emballage:** III

**Quantité à déclarer:** No

**Polluant marin:** No

**Exceptions:** Quantité limitée égale à ou moins de 5 Kg

**2020 ERG Guide #:** 140

## Section 15 Informations sur la réglementation

Un produit chimique est considéré comme inscrit si le numéro CAS pour la forme anhydre est sur la liste d'inventaire.

Composant	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL
Engrais au nitrate calcium ammonium	Listed	Not listed	Not listed	Not listed	Not listed

## Section 16 Autres renseignements

Les informations contenues dans ce document sont fournis sans garantie d'aucune sorte. Les employeurs devraient considérer cette information seulement comme complément à d'autres informations recueillies par eux et doivent prendre des décisions indépendantes de la pertinence et l'exhaustivité de l'information de toutes les sources afin d'assurer une utilisation correcte de ces matériaux et de la sécurité et la santé des employés. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

**Section 1 Chemical Product and Company Identification**

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**HOME SCIENCE TOOLS**

665 Carbon Street  
 Billings, MT 59102  
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**CHEMTREC 24 Hour Emergency USA**  
**Phone Number (800) 424-9300**  
**1 703-741-5500 (from anywhere in the world).**  
 For laboratory and industrial use only.  
 Not for drug, food or household use.

<b>Product</b>	<b>MAGNESIUM SULFATE, HEPTAHYDRATE</b>
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<b>Synonyms</b>	Epsom Salts
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**Section 2 Hazards Identification**

**This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.**

**Signal word:** None

**Pictograms:** No symbol required

**Target organs:** None known

**GHS Classification:** Not classified

**GHS Label information: Hazard statement:** Not classified

**Precautionary statement:** Not classified

**Supplementary information:**

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

**Hazards not otherwise classified:**

Health hazards not otherwise classified (HHNOC) - Not Known

Physical hazards not otherwise classified (PHNOC) - Not Known

**Section 3 Composition / Information on Ingredients**

Chemical Name	CAS #	%	EINECS
Magnesium sulfate	10034-99-8	100%	231-298-2 (anhydrous)

**Section 4 First Aid Measures**

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

**Section 5 Fire Fighting Measures**

**Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Section 6 Accidental Release Measures**

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Magnesium sulfate	None established	None established	None established

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical &amp; Chemical Properties

<b>Appearance:</b> Solid, White crystalline powder <b>Odor:</b> No odor. <b>Odor threshold:</b> Data not available. <b>pH:</b> Data not available. <b>Melting / Freezing point:</b> Data not available <b>Boiling point:</b> Data not available <b>Flash point:</b> Data not available	<b>Evaporation rate ( = 1):</b> Data not available <b>Flammability (solid/gas):</b> Data not available. <b>Explosion limits: Lower / Upper:</b> Data not available <b>Vapor pressure (mm Hg):</b> Data not available <b>Vapor density (Air = 1):</b> Data not available <b>Relative density (Specific gravity):</b> 2.7 <b>Solubility(ies):</b> Appreciable in water.	<b>Partition coefficient:</b> Data not available <b>Auto-ignition temperature:</b> Data not available <b>Decomposition temperature:</b> Data not available <b>Viscosity:</b> Data not available. <b>Molecular formula:</b> MgSO <sub>4</sub> ·7H <sub>2</sub> O <b>Molecular weight:</b> 246.48
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## Section 10 Stability &amp; Reactivity

**Chemical stability:** Stable **Hazardous polymerization:** Will not occur.

**Conditions to avoid:** Excessive temperatures and heat. Protect from moisture.

**Incompatible materials:** None known.

**Hazardous decomposition products:** Sulfur oxides.

## Section 11 Toxicological Information

**Acute toxicity:** Data not available

**Skin corrosion/irritation:** Data not available

**Serious eye damage/irritation:** Data not available

**Respiratory or skin sensitization:** Data not available

**Germ cell mutagenicity:** Data not available

**Carcinogenicity:** Data not available

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.

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.

**Reproductive toxicity:** Data not available

**STOT-single exposure:** Data not available

**STOT-repeated exposure:** Data not available

**Aspiration hazard:** Data not available

**Potential health effects:**

Inhalation: May cause respiratory irritation.

Ingestion: Ingestion may cause nausea, vomiting and diarrhea.

Skin: Contact with skin may cause irritation.

Eyes: Contact with eyes may cause irritation.

**Signs and symptoms of exposure:** To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

**Additional information: RTECS #:** Data not available

## Section 12 Ecological Information

**Toxicity to fish:** Gambusia affinis (fish, fresh water), LC50: 15,500 mg/L/24 hours

**Toxicity to daphnia and other aquatic invertebrates:** Daphnia magna (Crustacea), EC50: 1,700 mg/L/24 hours

**Toxicity to algae:** Scenedesmus subspicatus (Algae), EC50: 2,700 mg/L/ 72 hours

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and vPvB assessment:** No data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information (US DOT / CANADA TDG)

**UN/NA number:** Not applicable

**Shipping name:** Not Regulated

**Hazard class:** Not applicable

**Packing group:** Not applicable

**Reportable Quantity:** No

**Marine pollutant:** No

**Exceptions:** Not applicable

**2016 ERG Guide #:** Not applicable

## Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Magnesium sulfate	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

## Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

**Section 1 Chemical Product and Company Identification**

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**Phone Number (800) 424-9300**  
**1 703-741-5500 (from anywhere in the world).**  
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<b>Product</b>	<b>FERTILIZER 24-8-16</b>
<b>Synonyms</b>	Plant Nutrient; Nutrient QuickSolution

**Section 2 Hazards Identification**

**Signal word:** WARNING  
**Pictograms:** GHS07  
**Target organs:** None known



**GHS Classification:**  
Skin irritation (Category 2)  
Eye irritation (Category 2A)  
STOT-SE (Category 3)

**GHS Label information: Hazard statement:**  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.

**Precautionary statement:**

P261: Avoid breathing dust.  
P264: Wash hands thoroughly after handling.  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352: IF ON SKIN: Wash with plenty of water and soap.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312: Call a POISON CENTER or doctor if you feel unwell.  
P332+P313: If skin irritation occurs: Get medical attention.  
P337+P313: If eye irritation persists: Get medical attention.  
P362+P364: Take off contaminated clothing and wash it before reuse.  
P403+P233: Store in a well-ventilated place. Keep container tightly closed.  
P405: Store locked up.  
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

**Hazards not otherwise classified:**

Health hazards not otherwise classified (HHNOC) - Not Known  
Physical hazards not otherwise classified (PHNOC) - Not Known

**Section 3 Composition / Information on Ingredients**

Chemical Name	CAS #	%	EINECS
Total Nitrogen	Not available	24%	
Available Phosphate	Not available	8%	
Soluble Potash	Not available	16%	

**Section 4 First Aid Measures**

**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

**Section 5 Fire Fighting Measures**

**Suitable Extinguishing Media:** Use any media suitable for extinguishing supporting fire.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

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**Conditions for Safe Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Particulate not otherwise classified	None established	TWA: 15 mg/m <sup>3</sup> total dust	None established

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical &amp; Chemical Properties

<b>Appearance:</b> Solid, Bluish green, crystals. <b>Odor:</b> No odor. <b>Odor threshold:</b> Data not available. <b>pH:</b> Data not available. <b>Melting / Freezing point:</b> Data not available <b>Boiling point:</b> Data not available <b>Flash point:</b> Data not available	<b>Evaporation rate ( = 1):</b> Data not available <b>Flammability (solid/gas):</b> Data not available. <b>Explosion limits: Lower / Upper:</b> Data not available <b>Vapor pressure (mm Hg):</b> Data not available <b>Vapor density (Air = 1):</b> Data not available <b>Relative density (Specific gravity):</b> Data not available <b>Solubility(ies):</b> Soluble in water.	<b>Partition coefficient:</b> Data not available <b>Auto-ignition temperature:</b> Data not available <b>Decomposition temperature:</b> Data not available. <b>Viscosity:</b> Data not available. <b>Molecular formula:</b> Mixture <b>Molecular weight:</b> Mixture
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## Section 10 Stability &amp; Reactivity

**Chemical stability:** Stable  
**Conditions to avoid:** Excessive temperatures and heat.  
**Incompatible materials:** None known.  
**Hazardous decomposition products:** Carbon oxides, nitrogen oxides, phosphorous oxides, and ammonia.

**Hazardous polymerization:** Will not occur.

## Section 11 Toxicological Information

**Acute toxicity:** Oral-rat LD50: Data not available  
**Skin corrosion/irritation:** Data not available  
**Serious eye damage/irritation:** Data not available  
**Respiratory or skin sensitization:** Data not available  
**Germ cell mutagenicity:** Data not available  
**Carcinogenicity:** Data not available  
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.  
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.  
**Reproductive toxicity:** Data not available  
**STOT-single exposure:** Data not available  
**STOT-repeated exposure:** Data not available  
**Aspiration hazard:** Data not available  
**Potential health effects:**  
Inhalation: Inhalation may cause irritation and coughing.  
Ingestion: Ingestion may cause nausea, vomiting, and diarrhea.  
Skin: Contact may cause irritation.  
Eyes: Contact may cause irritation.  
**Signs and symptoms of exposure:** To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.  
**Additional information: RTECS #:** None

## Section 12 Ecological Information

**Toxicity to fish:** No data available  
**Toxicity to daphnia and other aquatic invertebrates:** No data available  
**Toxicity to algae:** No data available  
**Persistence and degradability:** No data available  
**Mobility in soil:** No data available  
**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Bioaccumulative potential:** No data available

**PBT and vPvB assessment:** No data available

## Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport Information (US DOT / CANADA TDG)

**UN/NA number:** Not applicable  
**Hazard class:** Not applicable  
**Exceptions:** Not applicable

**Shipping name:** Not Regulated

**Packing group:** Not applicable

**2016 ERG Guide #** Not applicable

**Reportable Quantity:** No

**Marine pollutant:** No

## Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Total nitrogen	Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Available phosphates	Listed	Not listed	Not listed	Listed	Not listed	
Soluble potash	Listed	Not listed	Not listed	Listed	Not listed	

## Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.



# SAFETY DATA SHEET

## FORMALIN FIXED GRASSFROGS AND BULLFROGS IN PRESERVED HOLDING SOLUTION



www.ranaco.com

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Formalin Fixed Grassfrogs and Bullfrogs In Preserved Holding Solution  
**Recommended Use:** Science education applications  
**Synonyms:** None  
**Manufacturer/Supplier:** Ranaco Corporation, 4345 E Irvington Road, Tucson, AZ 85714  
**General Information:** 800-528-7023  
**Transportation Emergency Number:** 800-424-9300 Chemtrec – 24 hours assistance

### SECTION 2: HAZARD IDENTIFICATION

#### DANGER



**Targeted organs:**

Eyes, Skin, Central Nervous System,  
Respiratory Tract

**GHS Classification:**

Acute Toxicity, oral (Category 4)  
Acute Toxicity, dermal (Category 4)  
Skin Irritation (Category 2)  
Eye irritation (Category 2A)  
Skin sensitization (Category 1)  
Acute toxicity, inhalation (Category 4)  
Carcinogenicity (Category 2)

**Hazard Statements:**

Maybe harmful if swallowed.  
Causes skin irritation.  
Causes eye irritation.  
May cause an allergic skin reaction.  
May cause respiratory irritation.  
May cause cancer.

**⚠ WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Precautionary Statements:**

Obtain special instructions before use.  
Wear protective gloves and eye protection.  
Do not eat, drink or smoke when using this product.  
Wash hands thoroughly after handling.  
IF ON SKIN: Wash with plenty of soap and water.  
IF IN EYES: Rinse cautiously for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.  
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
IF SWALLOWED: Immediately call a POISON CENTER or physician  
IF exposed or concerned: Get medical advice/attention.  
Store in a well- ventilated place. Keep container tightly closed.  
Dispose of contents/container in accordance with local/regional/national regulations.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS #	%
Formaldehyde	50-00-0	All concentrations are withheld due to Trade Secret
Methanol	67-56-1	
Propylene Glycol	57-55-6	
Ethylene Glycol Monophenyl Ether	122-99-6	
Acetone	67-64-1	
Glutaraldehyde	111-30-8	
BHT Butylated Hydroxytoluene	128-37-0	
Polysorbate 80	9005-65-6	
Water	7732-18-5	Balance

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## SECTION 4: FIRST AID MEASURES

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**SKIN CONTACT:** Wash affected area with soap and water. Seek medical attention if symptoms develop.

**EYE CONTACT:** Rinse cautiously for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Seek medical attention if irritation persists.

**INHALATION:** Remove to fresh air. Get medical treatment if symptoms persist.

**INGESTION:** Immediately call a POISON CENTER or physician. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

**SIGNS AND SYMPTOMS OF EXPOSURE:** Irritation of skin, eyes, respiratory tract. Repeated exposure may cause dermatitis or other allergic reactions.

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## SECTION 5: FIRE FIGHTING MEASURES

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**EXTINGUISHING MEDIA:** Use dry chemical, CO<sub>2</sub>, water spray (fog) or alcohol foam.

**FIRE FIGHTING METHODS AND PROTECTION:** Firefighters should wear self-contained breathing apparatus and wear full protective equipment.

**FIRE AND/OR EXPLOSION HAZARDS:** During a fire, smoke generated can be irritating or toxic.

**HAZARDOUS COMBUSTION PRODUCTS:** Products of combustion include but are not limited to carbon monoxide and carbon dioxide.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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**PERSONAL PRECAUTIONS:** Avoid breathing vapors. Use gloves and eye protection to clean up spills.

**EMERGENCY PROCEDURES:** Ventilate area of spill. Eliminate all sources of ignition. Remove non-essential personnel.

**ENVIRONMENTAL PRECAUTIONS:** No special hazards. Follow applicable federal, state, provincial and local regulations regarding releases.

**METHODS FOR CONTAINMENT AND CLEAN-UP:** Absorb with liquid binding material and place in a sealed container. Dispose of waste in accordance with federal, state, provincial and local regulations.

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## SECTION 7: HANDLING AND STORAGE

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**PRECAUTIONS FOR SAFE HANDLING:** Do not eat, drink or smoke when using this product. Avoid breathing vapors. Avoid direct skin or eye contact with liquids. Do not ingest. Wash hands with soap and water after use or handling of product.

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:** Store at room temperature in a dry well ventilated area. Keep specimen container tightly closed when not in use.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Formaldehyde	C 0.3 ppm / C 0.37 mg/m <sup>3</sup>	TWA: 0.75 ppm / STEL: 2ppm	TWA: 0.016 ppm / STEL: 0.1 ppm
Methanol	TWA: 200 ppm / STEL: 250 ppm	TWA: 200 ppm / STEL: 260 ppm	TWA: 200 ppm / STEL: 250 ppm
Ethylene Glycol Monophenyl Ether	Not available	Not available	Not available
Glutaraldehyde	C 0.05 ppm / C 0.2 mg/m <sup>3</sup>	Not available	C 0.2 ppm / C 0.8 mg/m <sup>3</sup>
Acetone	TWA: 250 ppm / STEL: 500 ppm	TWA: 1000 ppm	TWA: 250 ppm
BHT Butylated Hydroxytoluene	2 mg/m <sup>3</sup> Vapor	5 mg/m <sup>3</sup> Nuisance Dust	TWA 10 mg/m <sup>3</sup>
Polysorbate 80	None	None	None
	<b>WEEL</b>		
Propylene Glycol	TWA 10 mg/m <sup>3</sup> Aerosol	Not available	Not available

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility, a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles or face shield, apron and appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory Protection:** None should be needed in normal handling and room temperatures. If use conditions generate fumes above the OSHA regulations, use of a NIOSH/MSHA approved respirator is required.

ACGIH: American Conference of Industrial Hygienists, OSHA: U.S. Occupational Safety and Health Administration, NIOSH: U.S. National Institute for Occupational Safety and Health, PEL: Permissible Exposure Limit, TWA: Time Weighted Average, STEL: Short Term Exposure Limit, REL: Recommended Exposure Limit, WEEL: Workplace Environmental Exposure Limit

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## SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

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**Appearance:** Specimen with/without clear colorless liquid  
**Odor:** Mild pungent or sweet odor  
**Odor Threshold:** Data not available  
**pH:** Data not available  
**Melting/Freezing Point:** Data not available  
**Boiling Point:** Data not available  
**Flash Point:** Data not available  
**Evaporation Rate (Water = 1) :** >1  
**Flammability (solid/gas):** Data not available  
**Explosion Limits: Lower/Upper:** Data not available

**Vapor Pressure (mmHg):** Data not available  
**Vapor Density:** Data not available  
**Relative Density (Specific Gravity):** >1  
**Solubility(ies):** Complete in water  
**Partition Coefficient:** Data not available  
**Auto-ignition Temperature:** Data not available  
**Decomposition Temperature:** Data not available  
**Viscosity:** Data not available  
**Molecular Formula:** Mixture  
**Molecular Weight:** Mixture

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## SECTION 10: STABILITY & REACTIVITY

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**Reactivity:** None under normal conditions.

**Chemical Stability:** Stable

**Conditions to Avoid:** Excessive temperatures which cause evaporation.

**Incompatible Materials:** Strong acids, phenol, strong oxidizers, strong bases, hydrochloric acid, ammonia, iodine, alkalis, tannin, iron products, gelatin, bisulfate

**Hazardous Polymerization:** None under normal conditions.

**Hazardous Decomposition Products:** May include, but are not limited to Carbon oxides, gaseous formaldehyde, aldehydes, ketones, alcohols, ethers and organic acids

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## SECTION 11: TOXICOLOGICAL INFORMATION

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**Acute Toxicity:** Formalin Fixed Grassfrogs and Bullfrogs in Preserved Holding Solution have not been tested as a mixture. Information about individual components is supplied.

Formaldehyde – Oral-rat LD50: 100 mg/kg; Inhalation-rat LC50: 250 ppm/4 hours; Dermal-rat: 270 mg/kg

Methanol - Oral-rat LD50: 5,600 mg/kg; Inhalation-rat LC50: 6,400 ppm/4 hours, 145,000 ppm/ 1 hour; Dermal-rat: 15,800 mg/kg

Propylene Glycol – Ingestion-rat LD50: > 20,000 mg/kg, Skin absorption-rabbit LD50: > 20,000 mg/kg

Ethylene Glycol Monophenyl Ether- Oral-rat LD50: 1,840 mg/kg; Dermal-rabbit: >2,214 mg/kg

Glutaraldehyde - Oral-rat LD50:200mg/kg; Dermal-rabbit LD50: 1,749 mg/kg

Acetone - Oral-rat LD50: 5,800 mg/kg; Inhalation-rat LC50: 50,100 mg/m<sup>3</sup>; Irritation eye-rabbit: standard draize, 20 mg

BHT Butylated Hydroxytoluene - Oral-rat LD50: >2,930 mg/kg; Dermal-rat: >2,000 mg/kg

**Chronic Effects:** Data not available.

**Skin Corrosion/Irritation:**

Causes skin irritation. May cause an allergic skin reaction.

**Serious Eye Damage/Irritation:**

Causes eye irritation or damage.

**Respiratory or Skin Sensitization:**

May cause sensitization by skin contact

**Germ Cell Mutagenicity:** Data not available.

**Carcinogenicity:** Data not available. Information about individual components is supplied.

Formaldehyde – Classified as a carcinogen by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) and OSHA. CA Prop 65: Formaldehyde is known to the State of California to cause cancer.

**Reproductive Toxicity:** Data not available. Information about individual components is supplied.

Methanol - CA Prop 65: This chemical is known to the State of California to cause birth defects or other reproductive harm.

**Specific Target Organ Toxicity – Single exposure:** Data not available.

**Specific Target Organ Toxicity– Repeated exposure:** Data not available.

**Aspiration Hazard:** Data not available.

**Potential Health Effects:**

**Inhalation:** May cause respiratory irritation.

**Ingestion:** May be harmful if swallowed.

**Skin:** May cause skin irritation. May cause an allergic skin reaction.

**Eyes:** May cause eye irritation or damage.

**Signs and Symptoms of Exposure:**

The chemical, physical and toxicological properties have not been thoroughly investigated for this product/mixture. Specific data is not available. Exercise appropriate procedures to minimize hazards.

**SECTION 12: ECOLOGICAL INFORMATION**

**Toxicity to fish:** No data available.

**Toxicity to daphnia and other aquatic invertebrates:** No data available.

**Toxicity to algae:** No data available.

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**PBT and vPvB assessment:** No data available.

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose of contents/container in accordance with local/regional/national regulations.

**SECTION 14: TRANSPORTATION INFORMATION (US DOT / CANADA TDG)**

<b>UN/NA Number:</b> Not applicable	<b>Shipping Name:</b> Not regulated		
<b>Hazard Class:</b> Not applicable	<b>Packing Group:</b> Not applicable	<b>Reportable Quantity:</b> No	<b>Marine Pollutant:</b> No
<b>Exceptions:</b> Not applicable	<b>2012 ERG Guide#:</b> Not applicable		

**SECTION 15: REGULATORY INFORMATION**

Toxic Substances Control Act (TSCA): All components of this product are included on the TSCA inventory.

Component	TSCA	CERLCA (RQ)	RCRA CODE	DSL	NDSL	WHMIS CLASSIFICATION
Formaldehyde	Listed	100 lbs (45.4 kg)	U122	Listed	Not Listed	D1A; D2A; D2B
Methanol	Listed	5,000 lbs (2,270 kg)	U154	Listed	Not Listed	B2; D1B; D2A; D2B
Propylene Glycol	Listed	None	None	Listed	Not Listed	None
Ethylene Glycol Monophenyl Ether	Listed	None	None	Listed	Not Listed	B3
Acetone	Listed	5,000 lbs	U002	Listed	Not Listed	B2, D2B
Glutaraldehyde	Listed	None	None	Listed	Not Listed	D1A, D2B, E
BHT Butylated Hydroxytoluene	Listed	None	None	Listed	Not Listed	None
Polysorbate 80	Listed	None	None	Listed	Not Listed	None

California Proposition 65 Information:

**⚠WARNING:** This product can expose you to chemicals including formaldehyde, which is known to the State of California to cause cancer, and methanol, which is known to the State of California to cause birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**SECTION 16: OTHER INFORMATION**

**Date Prepared:** July 23, 2018      **Supersedes:** April 24, 2018

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