

Section 1 - PRODUCT AND COMPANY IDENTIFICATION**Material Name**

Generate® for Organic Use, Product Code: 49011

Product Use

Liquid fertilizer.

Restrictions on Use

Use Only as Directed on Label.

Protect from freezing.

Protect against direct sunlight.

Details of the supplier of the safety data sheet

Agnition

1600 Hahn Rd

Marshall MN 56258

Guaranteed by:

Ralco Nutrition, Inc.

1600 Hahn Road,

Marshall MN 56258

Phone: 1-855-832-0613

Section 2 - HAZARDS IDENTIFICATION**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Respiratory Sensitization - Category 1A

Skin Sensitization - Category 1A

Germ Cell Mutagenicity - Category 2

Carcinogenicity - Category 2

Reproductive Toxicity - Category 1A

Specific Target Organ Toxicity - Single Exposure - Category 2

Specific Target Organ Toxicity - Repeated Exposure - Category 1 (heart , respiratory system , Cardiovascular system)

Hazardous to the Aquatic Environment - Acute - Category 2

Hazardous to the Aquatic Environment - Chronic - Category 2

GHS Label Elements**Symbol(s)****Signal Word**

Danger



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Hazard Statement(s)

May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing genetic defects.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause damage to organs.
Causes damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear respiratory protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves.

Response

Collect spillage.
If exposed or concerned: Call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Get medical advice/attention if you feel unwell.

Storage

Store locked up.

Disposal

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
7732-18-5	Water	70-100
7782-63-0	Ferrous sulfate heptahydrate	< 3
10124-43-3	Cobalt sulfate	< 3

Section 4 - FIRST AID MEASURES**Description of Necessary Measures**

If exposed or concerned: Call a POISON CENTER or doctor/physician.

IF exposed or concerned: Get medical advice/attention.

Inhalation

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Skin

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

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Get medical advice/attention if you feel unwell.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth thoroughly with water.

Most Important Symptoms/Effects**Delayed**

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

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

May damage fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Note to Physicians

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES**Extinguishing Media****Suitable Extinguishing Media**

Water spray, regular dry chemical, carbon dioxide, fire-fighting foam.

Unsuitable Extinguishing Media

Do not scatter spilled material with high-pressure water streams.

Fire Fighting Measures

Co-ordinate fire-fighting measures to the fire surroundings.

Special Protective Equipment and Precautions for Firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

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Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Use Personal Protective equipment as required.

Wear respiratory protection.

Do not breathe dust/fume/gas/mist/vapors/spray.

Methods and Materials for Containment and Cleaning Up

Absorb with sand or other non-combustible material.

Collect in closed and suitable containers for disposal.

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

Environmental Precautions

Toxic to aquatic life with long lasting effects.

Avoid release to the environment.

Hazardous to the Aquatic Environment - Acute.

Hazardous to the Aquatic Environment - Chronic.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

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

Use Personal Protective equipment as required.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear respiratory protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Do not eat, drink or smoke when using this product.

Wear protective gloves.

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

Conditions for Safe Storage, Including any Incompatibilities

Store locked up.

Store in a well-ventilated place.

Keep container tightly closed.

Protect from sunlight.

Protect from freezing.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Engineering Controls

Sufficient to maintain atmospheric concentrations below applicable regulatory limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear eye protection/face protection.

Skin Protection

Wear suitable protective clothing.

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Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

Glove Recommendations

Wear protective gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid.	Physical State	Liquid.
Odor	Fruity odor.	Color	Red brown.
Odor Threshold	Not available	pH	3.59
Melting Point	Not available	Boiling Point	Not available
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	Not available
Lower Explosive Limit	Not available	Decomposition temperature	Not available
Upper Explosive Limit	Not available	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available
Water Solubility	Not available	Partition coefficient: n-octanol/water	Not available
Viscosity	Not available	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	1.06
Molecular Weight	Not available		

Section 10 - STABILITY AND REACTIVITY

Reactivity

No known hazardous reactions.

Chemical Stability

The product is stable under storage at normal ambient temperatures.

Conditions to Avoid

Avoid contact with incompatible materials.

Incompatible Materials

Nitric acid.

Hydrofluoric acid.

Hazardous decomposition products

No known hazardous decomposition products.

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Section 11 - TOXICOLOGICAL INFORMATION
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Information on Likely Routes of Exposure

Inhalation

Yes.

Skin Contact

Yes.

Ingestion

Yes.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Ferrous sulfate heptahydrate (7782-63-0)

Oral LD50 Mouse 1520 mg/kg

Cobalt sulfate (10124-43-3)

Oral LD50 Rat 424 mg/kg

Zinc sulfate, monohydrate (7446-19-7)

Oral LD50 Mouse 1891 mg/kg

Copper(II) carbonate hydroxide (12069-69-1)

Oral LD50 Rat 1350 mg/kg (in gum arabic ;males)

Dermal LD50 Rat >2000 mg/kg (no deaths occurred)

Inhalation LC50 Rat 1.2 mg/L 4 h

Product Toxicity Data

Acute Toxicity Estimate

Dermal	> 2000 mg/kg
Inhalation - Vapor	> 20 mg/L
Oral	> 2000 mg/kg

Immediate Effects

No information on significant adverse effects.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

No data available.

Respiratory Sensitization

No data available.

Dermal Sensitization

No data available.

Component Carcinogenicity

Cobalt sulfate	10124-43-3
IARC:	Monograph 86 [2006] ; Monograph 52 [1991] (Group 2B (possibly carcinogenic to humans))

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NTP:	Reasonably Anticipated To Be A Human Carcinogen
OSHA:	Present
Cobalt[II] carbonate hydroxide (2:3) monohydrate	51839-24-8
IARC:	Monograph 52 [1991] (Group 2B (possibly carcinogenic to humans))
OSHA:	Present

Germ Cell Mutagenicity

No data available.

Tumorigenic Data

No data available.

Reproductive Toxicity

No data available.

Specific Target Organ Toxicity - Single Exposure

No data available.

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

No data available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Cobalt sulfate	10124-43-3
Algae:	EC50 72 h Pseudokirchneriella subcapitata 0.4 - 72 mg/L IUCLID

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Avoid release to the environment.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Marine pollutant

No Classification assigned.

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International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Ferrous sulfate heptahydrate	7782-63-0
CERCLA:	1000 lb final RQ ; 454 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Carcinogenicity; Reproductive Toxicity; Respiratory/Skin Sensitization; Specific Target Organ Toxicity; Germ Cell Mutagenicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Ferrous sulfate heptahydrate	7782-63-0	No	Yes	No	No	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)



WARNING

This product can expose you to chemicals including Cobalt sulfate, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Cobalt sulfate	10124-43-3
Carc:	carcinogen, 5/20/2005

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Component Analysis - Inventory

Water (7732-18-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	No	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

Ferrous sulfate heptahydrate (7782-63-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
No	No	Yes	Yes	No	Yes	Yes	No	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

Cobalt sulfate (10124-43-3)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes



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Section 16 - OTHER INFORMATION

Preparation Date

SDS: 12/01/2020

Supersedes: 06/09/2020

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne - Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of Ralco's knowledge, information and belief at the date of preparation. The information provided is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The conditions or methods of said handling, storage, use, and disposal of this product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expenses arising out of or connected with the handling, storage, use, or disposal of this product. The information provided 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 text.