

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Red Vigor  
Product code : M77699

#### 1.2. Recommended use and restrictions on use

#### 1.3. Supplier

INNICTIS@ BIOSCIENCE  
PLANT HEALTH TECHNOLOGIES  
P.O. Box 9296  
Boise ID 83707, - USA  
T 855-466-8428

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Skin corrosion/irritation, Category 2 H315 Causes skin irritation.  
Serious eye damage/eye irritation, Category 2B H320 Causes eye irritation

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H315 - Causes skin irritation.  
H320 - Causes eye irritation

Precautionary statements (GHS US) : P264 - Wash hands, forearms and face thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - If on skin: Wash with plenty of water/...  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 - Specific treatment (see supplemental first aid instruction on this label)  
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.

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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Name	Product identifier	%	GHS-US classification
Iron EDDHSA	(CAS-No.) 57368-07-7/642045-40-7	33.3	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2B, H320
cobalt(II)carbonate	(CAS-No.) 513-79-1	0.04	Acute Tox. 4 (Oral), H302 Resp. Sens. 1, H334 Skin Sens. 1, H317 Muta. 2, H341 Carc. 2, H351

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- 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).
- First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

#### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Specific hazards arising from the chemical

#### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition. Direct sunlight.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<b>Red Vigor</b>
No additional information available
<b>cobalt(II)carbonate (513-79-1)</b>
No additional information available
<b>Water (7732-18-5)</b>
No additional information available
<b>Inert Compounds</b>
No additional information available
<b>Iron EDDHSA (57368-07-7/642045-40-7)</b>
No additional information available

#### 8.2. Appropriate engineering controls

#### 8.3. Individual protection measures/Personal protective equipment

##### Personal protective equipment:

Avoid all unnecessary exposure.

##### Hand protection:

Wear protective gloves.

##### Eye protection:

Chemical goggles or safety glasses

##### Respiratory protection:

Wear appropriate mask

##### Other information:

Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Appearance : Liquid.  
Colour : No data available on colour  
Odour : Not listed  
Odour threshold : No data available  
pH : 8  
Melting point : No data available  
Freezing point : No data available

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Boiling point	: > 100 °C
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable.

### 10.2. Chemical stability

Stable. Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### cobalt(II)carbonate (513-79-1)

LD50 oral rat	640 mg/kg (Rat)
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#### Iron EDDHSA (57368-07-7/642045-40-7)

LD50 dermal rat	1600 mg/kg
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Skin corrosion/irritation	: Causes skin irritation. pH: 8
Serious eye damage/irritation	: Causes eye irritation. pH: 8
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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<b>cobalt(II)carbonate (513-79-1)</b>	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<b>cobalt(II)carbonate (513-79-1)</b>	
EC50 Daphnia 1	0.021 mg/l (48 h; Daphnia magna; Cobalt ion)
Threshold limit algae 1	0.018 mg/l (96 h; Selenastrum capricornutum; Cobalt ion)

#### 12.2. Persistence and degradability

<b>Red Vigor</b>	
Persistence and degradability	Not established.
<b>cobalt(II)carbonate (513-79-1)</b>	
Persistence and degradability	Biodegradability: not applicable. May cause long-term adverse effects in the environment.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
<b>Water (7732-18-5)</b>	
Persistence and degradability	Not established.
<b>Inert Compounds</b>	
Persistence and degradability	Not established.
<b>Iron EDDHSA (57368-07-7/642045-40-7)</b>	
Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

<b>Red Vigor</b>	
Bioaccumulative potential	Not established.
<b>cobalt(II)carbonate (513-79-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	-1.32 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>Water (7732-18-5)</b>	
Bioaccumulative potential	Not established.
<b>Inert Compounds</b>	
Bioaccumulative potential	Not established.
<b>Iron EDDHSA (57368-07-7/642045-40-7)</b>	
Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

No additional information available

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### 12.5. Other adverse effects

Other information : Avoid unintentional release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid unintentional release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

### Transportation of Dangerous Goods

### Transport by sea

### Air transport

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Red Vigor

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Inert Compounds	CAS-No.	2.2%
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### 15.2. International regulations

#### CANADA

#### Red Vigor

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### cobalt(II)carbonate (513-79-1)

Listed on the Canadian DSL (Domestic Substances List)

#### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List)

#### Inert Compounds

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### Iron EDDHSA (57368-07-7/642045-40-7)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

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Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

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Other information : None.

Full text of H-statements:

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H320	Causes eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*