

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : BEST Super Iron 9-9-9
 Product code : 96016

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilizer

1.3. Supplier

JR Simplot Company
 P.O. Box 70013
 Boise, ID 83707
 T 1-208-336-2110

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

Acute toxicity (oral) Category 4 H302 Harmful if swallowed
 Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation
 Carcinogenicity Category 1A H350 May cause cancer

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) : 

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H302 - Harmful if swallowed
 H319 - Causes serious eye irritation
 H350 - May cause cancer

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P308+P313 - If exposed or concerned: Get medical advice/attention.
 P330 - Rinse mouth.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P405 - Store locked up.
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Monoammonium Phosphate	(CAS-No.) 7722-76-1	10-20	Eye Irrit. 2B, H320 STOT SE 3, H335
Iron Sucrate	(CAS-No.) 8047-67-4	1-20	Acute Tox. 3 (Oral), H301 Carc. 2, H351
dolomite	(CAS-No.) 16389-88-1	5-15	Eye Irrit. 2B, H320
calcium sulfate	(CAS-No.) 7778-18-9	.5-2	Eye Irrit. 2B, H320 STOT SE 3, H335
quartz	(CAS-No.) 14808-60-7	0-.5	Eye Irrit. 2B, H320 Carc. 1A, H350 STOT SE 3, H335 STOT RE 2, H373

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 after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

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

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Monoammonium Phosphate (7722-76-1)	
No additional information available	
calcium sulfate (7778-18-9)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Calcium sulfate, the anhydrate
ACGIH TWA (mg/m ³)	10 mg/m ³
Remark (ACGIH)	TLV® Basis: Nasal symptoms
Regulatory reference	ACGIH 2019
USA - OSHA - Occupational Exposure Limits	
Local name	Calcium sulfate
OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
quartz (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Silica crystalline - quartz
ACGIH TWA (mg/m ³)	0.025 R
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2019
USA - OSHA - Occupational Exposure Limits	
Local name	Quartz (Respirable) (Silica: Crystalline)
Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO ₂ +5)) for mppcf and (10 mg/m ³ / (%SiO ₂ +2)) for mg/m ³ . CAS No. source: eCFR Table Z-1.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
Iron Sucrate (8047-67-4)	
No additional information available	
dolomite (16389-88-1)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (mg/m ³)	3 mg/m ³

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

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Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: Mixture contains one or more component(s) which have the following colour(s): Colourless-white Unpurified: grey-brown Colourless to white Commercial substance: grey-green White Pure substance: colourless to white Unpurified: grey-blue or red Colorless Black White to dark grey
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Odourless
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

ATE US (oral)	656.929 mg/kg body weight
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Monoammonium Phosphate (7722-76-1)

LD50 oral rat	5750 mg/kg (Rat)
LD50 dermal rabbit	> 7940 mg/kg (Rabbit)

calcium sulfate (7778-18-9)

LD50 oral rat	> 1584 mg/kg body weight (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
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Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : May cause cancer.

quartz (14808-60-7)

IARC group	1 - Carcinogenic to humans
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Iron Sucrate (8047-67-4)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Monoammonium Phosphate (7722-76-1)

Specific target organ toxicity – single exposure	May cause respiratory irritation.
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calcium sulfate (7778-18-9)

Specific target organ toxicity – single exposure	May cause respiratory irritation.
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quartz (14808-60-7)

Specific target organ toxicity – single exposure	May cause respiratory irritation.
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Specific target organ toxicity – repeated exposure : Not classified

quartz (14808-60-7)

Specific target organ toxicity – repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified
Viscosity, kinematic : No data available

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Monoammonium Phosphate (7722-76-1)	
LC50 fish 1	155 ppm (96 h; Pimephales promelas)
calcium sulfate (7778-18-9)	
LC50 fish 1	2980 mg/l (96 h; Lepomis macrochirus)
LC50 fish 2	> 56000 mg/l (96 h; Gambusia affinis)

12.2. Persistence and degradability

Monoammonium Phosphate (7722-76-1)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
calcium sulfate (7778-18-9)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
quartz (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
Iron Sucrate (8047-67-4)	
Persistence and degradability	Not established.
dolomite (16389-88-1)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Monoammonium Phosphate (7722-76-1)	
Bioaccumulative potential	Not bioaccumulative. Not established.
calcium sulfate (7778-18-9)	
Bioaccumulative potential	No bioaccumulation data available. Not established.
quartz (14808-60-7)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Bioaccumulative potential	No bioaccumulation data available. Not established.
Iron Sucrate (8047-67-4)	
Bioaccumulative potential	Not established.
dolomite (16389-88-1)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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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:

Iron Sucrate	CAS-No. 8047-67-4	1-20%
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15.2. International regulations

CANADA

Monoammonium Phosphate (7722-76-1)

Listed on the Canadian DSL (Domestic Substances List)

calcium sulfate (7778-18-9)

Listed on the Canadian DSL (Domestic Substances List)

quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

Iron Sucrate (8047-67-4)

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

dolomite (16389-88-1)

Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

quartz (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
calcium sulfate(7778-18-9)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

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Component	State or local regulations
quartz(14808-60-7)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

H301	Toxic if swallowed
H302	Harmful if swallowed
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

SDS US (GHS HazCom 2012)

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