

Best-Tabs 20-10-5 Controlled Release Fertilizer Tablets

Safety Data Sheet

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

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Best-Tabs 20-10-5 Controlled Release Fertilizer Tablets
Product code : M74002

1.2. Recommended use and restrictions on use

No additional information available

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

Skin corrosion/irritation, Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation, Category 2B	H320	Causes eye irritation
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory 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
H335 - May cause respiratory irritation

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P264 - Wash hands, forearms and face 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/...
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center/doctor/... if you feel unwell
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
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to ... specify in accordance with local/regional/national regulations

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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. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
formaldehyde/urea, resins	(CAS No) 9011-05-6		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
Monoammonium Phosphate	(CAS No) 7722-76-1		Eye Irrit. 2B, H320 STOT SE 3, H335
potassium sulfate	(CAS No) 7778-80-5		Not classified
Calcium Phosphate	(CAS No) 7758-23-8		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
Dicalcium Phosphate	(CAS No) 7757-93-9		Eye Irrit. 2B, H320
Pacmix	(CAS No) None		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
ammonium sulfate	(CAS No) 7783-20-2		Eye Irrit. 2B, H320 STOT SE 3, H335
Wax	(CAS No) 64771-72-8		Not classified
magnesium stearate	(CAS No) 557-04-0		Not classified
Ferrous Sulfate Monohydrate	(CAS No) 17375-41-6		Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320 STOT SE 3, H335

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	: Remove person to fresh air and keep comfortable for breathing. Allow breathing of 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. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

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/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.

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	: 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

Reactivity	: Stable.
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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 environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. 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. Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. 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 : Recover mechanically the product. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

formaldehyde/urea,resins (9011-05-6)
Not applicable
Monoammonium Phosphate (7722-76-1)
Not applicable
Calcium Phosphate (7758-23-8)
Not applicable
Dicalcium Phosphate (7757-93-9)
Not applicable
ammonium sulfate (7783-20-2)
Not applicable
potassium sulfate (7778-80-5)
Not applicable

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Ferrous Sulfate Monohydrate (17375-41-6)		
Not applicable		
Pacmix (None)		
Not applicable		
magnesium stearate (557-04-0)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
Wax (64771-72-8)		
Not applicable		

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

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

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	: Solid
Appearance	: Mottled grey.
Colour	: Gray
Odour	: characteristic
Odour threshold	: No data available
pH	: 7.36
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Non-flammable
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	: Not applicable
Density	: 2.97 g/cm ³
Solubility	: Soluble and slowly soluble.
Log Pow	: No data available
Auto-ignition temperature	: Not applicable

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Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive limits	: Not applicable
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

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. Becomes corrosive to metals when wet. Strong bases.

10.6. Hazardous decomposition products

During high temperature in fire conditions. The product may reach melting point and decompose to release NH₃, SO_x, PO_x, or CN. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

formaldehyde/urea,resins (9011-05-6)	
LD50 oral rat	8394 mg/kg (Rat)
LD50 dermal rat	> 2100 mg/kg (Rat)
ATE US (oral)	8394 mg/kg bodyweight
Monoammonium Phosphate (7722-76-1)	
LD50 oral rat	5750 mg/kg (Rat)
LD50 dermal rat	> mg/kg
LD50 dermal rabbit	> 7940 mg/kg (Rabbit)
ATE US (oral)	5750 mg/kg bodyweight
Calcium Phosphate (7758-23-8)	
LD50 oral rat	17500 mg/kg (Rat; Literature)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature)
ATE US (oral)	17500 mg/kg bodyweight
Dicalcium Phosphate (7757-93-9)	
LD50 oral rat	10000 mg/kg (Rat)
LD50 dermal rat	7940 mg/kg (Rat)
ATE US (oral)	10000 mg/kg bodyweight
ATE US (dermal)	7940 mg/kg bodyweight
ammonium sulfate (7783-20-2)	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg
ATE US (oral)	2840 mg/kg bodyweight
potassium sulfate (7778-80-5)	
LD50 oral rat	6600 mg/kg (Rat)
ATE US (oral)	6600 mg/kg bodyweight

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Ferrous Sulfate Monohydrate (17375-41-6)	
LD50 oral rat	319 mg/kg
ATE US (oral)	319 mg/kg bodyweight

magnesium stearate (557-04-0)	
LD50 oral rat	> 5000 mg/kg (Rat)

Skin corrosion/irritation	: Causes skin irritation. pH: 7.36
Serious eye damage/irritation	: Causes eye irritation. pH: 7.36
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified

Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
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Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
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Specific target organ toxicity (repeated exposure)	: Not classified
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Aspiration hazard	: Not classified
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Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
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Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.
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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.
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formaldehyde/urea, resins (9011-05-6)	
LC50 fish 1	> 500 mg/l (96 h; <i>Leuciscus idus</i> ; Estimated value)
EC50 Daphnia 1	65000 mg/l (<i>Daphnia magna</i> ; QSAR)

Monoammonium Phosphate (7722-76-1)	
LC50 fish 1	155 ppm (96 h; <i>Pimephales promelas</i>)

ammonium sulfate (7783-20-2)	
LC50 fish 1	126 mg/l (96 h; <i>Poecilia reticulata</i>)
EC50 Daphnia 1	202 mg/l (96 h; <i>Daphnia magna</i>)
LC50 fish 2	250 - 480 mg/l (96 h; <i>Brachydanio rerio</i>)
EC50 Daphnia 2	433 mg/l (50 h; <i>Daphnia magna</i>)
TLM fish 1	1290 ppm (96 h; <i>Gambusia affinis</i>)

potassium sulfate (7778-80-5)	
LC50 fish 1	1692.4 mg/l (96 h; <i>Alburnus alburnus</i>)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	890 mg/l (48 h; <i>Daphnia magna</i> ; Static system)
LC50 fish 2	653 - 796 mg/l (96 h; <i>Lepomis macrochirus</i>)
EC50 Daphnia 2	1180 mg/l (96 h; Crustacea)
TLM fish 1	3550 ppm (96 h; <i>Lepomis sp.</i>)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)

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potassium sulfate (7778-80-5)	
Threshold limit algae 1	2900 mg/l (72 h; Scenedesmus subspicatus)

12.2. Persistence and degradability

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Persistence and degradability	Not established.
formaldehyde/urea,resins (9011-05-6)	
Persistence and degradability	Not readily biodegradable in water. Not established.
Monoammonium Phosphate (7722-76-1)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
Calcium Phosphate (7758-23-8)	
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
Dicalcium Phosphate (7757-93-9)	
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
ammonium sulfate (7783-20-2)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
potassium sulfate (7778-80-5)	
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
Ferrous Sulfate Monohydrate (17375-41-6)	
Persistence and degradability	Not established.
Pacmix (None)	
Persistence and degradability	Not established.
magnesium stearate (557-04-0)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
Wax (64771-72-8)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Best-Tabs 20-10-5 Controlled Release Fertilizer Tablets	
Bioaccumulative potential	Not established.
formaldehyde/urea,resins (9011-05-6)	
Bioaccumulative potential	No bioaccumulation data available. Not established.
Monoammonium Phosphate (7722-76-1)	
Bioaccumulative potential	Not bioaccumulative. Not established.
Calcium Phosphate (7758-23-8)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

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Dicalcium Phosphate (7757-93-9)	
Bioaccumulative potential	Not bioaccumulative. Not established.
ammonium sulfate (7783-20-2)	
Log Pow	-5.1
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
potassium sulfate (7778-80-5)	
Bioaccumulative potential	Not bioaccumulative. Not established.
Ferrous Sulfate Monohydrate (17375-41-6)	
Bioaccumulative potential	Not established.
Pacmix (None)	
Bioaccumulative potential	Not established.
magnesium stearate (557-04-0)	
Log Pow	14.34 (Estimated value)
Bioaccumulative potential	Not established.
Wax (64771-72-8)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

TDG

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

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:

Ferrous Sulfate Monohydrate	CAS No 17375-41-6	%
Pacmix	CAS No None	%

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15.2. International regulations

CANADA

No additional information available

ammonium sulfate (7783-20-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

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

SECTION 16: Other information

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.

Other information : None.

Full text of H-statements:

H302	Harmful if swallowed
H315	Causes skin irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

Disclaimer: This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.