

Farmers Exchange IRON-CLAD 18-0-18 40% XCU Plus 6% Fe

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 : Farmers Exchange IRON-CLAD 18-0-18 40% XCU Plus 6% Fe
Product code : M77759

1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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

Serious eye damage/eye irritation, Category 2B H320

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H320 - Causes eye irritation
Precautionary statements (GHS-US) : P264 - Wash hands, forearms and face thoroughly after handling
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical attention

2.3. Other hazards

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

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| Name | Product identifier | % | GHS-US classification |
|------------------------------|---------------------|---|--|
| urea (57-13-6) | (CAS No) 57-13-6 | | Eye Irrit. 2B, H320 |
| potassium chloride | (CAS No) 7447-40-7 | | Not classified |
| ammonium sulfate (7783-20-2) | (CAS No) 7783-20-2 | | Not classified |
| iron(II,III)oxide | (CAS No) 1317-61-9 | | Not classified |
| Calcium Sulfate Hemihydrate | (CAS No) 13397-24-5 | | Eye Irrit. 2B, H320 STOT SE 3, H335 |
| sulfur | (CAS No) 7704-34-9 | | Skin Irrit. 2, H315 Eye Irrit. 2B, H320 |
| Polymer Coating | | | Not classified |
| wax (paraffins- petroleum) | (CAS No) 64771-72-8 | | Not classified |

Full text of 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 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.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after eye contact : Causes eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. 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. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- 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.

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 : On land, sweep or shovel into suitable containers. Minimize generation of dust. 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

| | | |
|---|--------------------------------|---------------------|
| potassium chloride (7447-40-7) | | |
| Not applicable | | |
| wax (paraffins- petroleum) (64771-72-8) | | |
| Not applicable | | |
| Polymer Coating | | |
| Not applicable | | |
| sulfur (7704-34-9) | | |
| ACGIH | ACGIH TWA (mg/m ³) | 3 mg/m ³ |
| Not applicable | | |
| Calcium Sulfate Hemihydrate (13397-24-5) | | |
| Not applicable | | |
| urea (57-13-6) (57-13-6) | | |
| Not applicable | | |
| iron(II,III)oxide (1317-61-9) | | |
| Not applicable | | |
| ammonium sulfate (7783-20-2) (7783-20-2) | | |
| Not applicable | | |

8.2. Exposure controls

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 : Solid
Appearance : Granules.
Colour : Multi-colored
Odour : characteristic Ammonia-like odor
Odour threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available

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| | |
|--|---|
| Flash point | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Flammability (solid, gas) | : No data available |
| Explosive limits | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Vapour pressure | : No data available |
| Relative density | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Solubility | : Water: Solubility in water of component(s) of the mixture : • urea (57-13-6): 100 g/100ml • potassium chloride: 34 g/100ml • wax (paraffins- petroleum): insoluble • sulfur: insoluble • iron(II,III)oxide: insoluble • ammonium sulfate (7783-20-2): 77 g/100ml |
| Log Pow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

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 : Not classified

| potassium chloride (7447-40-7) | |
|--|---------------------------|
| LD50 oral rat | 2600 mg/kg (Rat) |
| ATE US (oral) | 2600.000 mg/kg bodyweight |
| wax (paraffins- petroleum) (64771-72-8) | |
| LD50 oral rat | > 5000 mg/kg (Rat) |
| LD50 dermal rabbit | > 2000 mg/kg (Rabbit) |
| sulfur (7704-34-9) | |
| LD50 oral rat | > 5000 mg/kg (Rat) |
| LD50 dermal rabbit | > 2000 mg/kg (Rabbit) |
| LC50 inhalation rat (mg/l) | > 9.23 mg/l/4h (Rat) |

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| urea (57-13-6) (57-13-6) | |
|---------------------------------|--|
| LD50 oral rat | 8471 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 14300 mg/kg bodyweight; Rat; Experimental value) |
| LD50 dermal rat | > 3200 mg/kg (Rat; Literature study) |
| LD50 dermal rabbit | > 21000 mg/kg (Rabbit; Literature study) |
| ATE US (oral) | 8471.000 mg/kg bodyweight |

| iron(II,III)oxide (1317-61-9) | |
|--------------------------------------|---------------------|
| LD50 oral rat | > 10000 mg/kg (Rat) |

| ammonium sulfate (7783-20-2) (7783-20-2) | |
|---|---------------------------|
| LD50 oral rat | 2840 mg/kg (Rat) |
| LD50 dermal rat | > 2000 mg/kg |
| ATE US (oral) | 2840.000 mg/kg bodyweight |

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Causes eye irritation. |
| 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 |

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after eye contact : Causes eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

| potassium chloride (7447-40-7) | |
|---------------------------------------|--|
| LC50 fish 1 | 920 mg/l (96 h; Gambusia affinis; Static system) |
| EC50 Daphnia 1 | 630 mg/l (48 h; Ceriodaphnia dubia) |
| LC50 fish 2 | 2010 mg/l (96 h; Lepomis macrochirus; Static system) |
| EC50 Daphnia 2 | 660 mg/l (48 h; Daphnia magna) |
| Threshold limit algae 1 | 850 mg/l (72 h; Scenedesmus subspicatus) |
| Threshold limit algae 2 | > 100 mg/l (72 h; Scenedesmus subspicatus; GLP) |

| sulfur (7704-34-9) | |
|---|--|
| LC50 fish 1 | 866 mg/l (96 h; Brachydanio rerio) |
| LC50 fish 2 | > 100 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| TLM fish 1 | 10000 ppm (96 h; Gambusia affinis) |
| Threshold limit other aquatic organisms 1 | > 10000 mg/l (24 h; Daphnia magna) |

| urea (57-13-6) (57-13-6) | |
|---------------------------------|---|
| LC50 fish 1 | > 6810 mg/l (96 h; Leuciscus idus; Nominal concentration) |
| EC50 Daphnia 1 | > 10000 mg/l (48 h; Daphnia magna; Nominal concentration) |
| LC50 fish 2 | 17500 mg/l (96 h; Poecilia reticulata) |
| EC50 Daphnia 2 | > 10000 mg/l (24 h; Daphnia magna) |
| TLM fish 1 | 17500 ppm (96 h; Poecilia reticulata) |

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| urea (57-13-6) (57-13-6) | |
|---|--|
| Threshold limit other aquatic organisms 1 | 120000 mg/l (16 h; Bacteria; Toxicity test) |
| Threshold limit other aquatic organisms 2 | > 10000 mg/l (Pseudomonas putida) |
| Threshold limit algae 1 | > 10000 mg/l (168 h; Scenedesmus quadricauda; Growth rate) |
| Threshold limit algae 2 | 47 mg/l (192 h; Microcystis aeruginosa; Growth rate) |

| iron(II,III)oxide (1317-61-9) | |
|--------------------------------------|------------------------------------|
| LC50 fish 1 | > 1000 mg/l (48 h; Leuciscus idus) |

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

12.2. Persistence and degradability

| Farmers Exchange IRON-CLAD 18-0-18 40% XCU Plus 6% Fe | |
|--|------------------|
| Persistence and degradability | Not established. |

| potassium chloride (7447-40-7) | |
|---------------------------------------|--|
| 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 |

| wax (paraffins- petroleum) (64771-72-8) | |
|--|---------------------------------|
| Persistence and degradability | Readily biodegradable in water. |

| sulfur (7704-34-9) | |
|---------------------------------|---|
| Persistence and degradability | Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil. Not established. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| Calcium Sulfate Hemihydrate (13397-24-5) | |
|---|------------------|
| Persistence and degradability | Not established. |

| urea (57-13-6) (57-13-6) | |
|---------------------------------|---|
| Persistence and degradability | Inherently biodegradable. Hydrolysis in water. Not established. |
| ThOD | 0.27 g O ₂ /g substance |

| iron(II,III)oxide (1317-61-9) | |
|--------------------------------------|---|
| Persistence and degradability | Biodegradability in water: no data available. Adsorbs into the soil. Not established. |

| ammonium sulfate (7783-20-2) (7783-20-2) | |
|---|--|
| Persistence and degradability | Biodegradability in water: no data available. Not established. |

12.3. Bioaccumulative potential

| Farmers Exchange IRON-CLAD 18-0-18 40% XCU Plus 6% Fe | |
|--|------------------|
| Bioaccumulative potential | Not established. |

| potassium chloride (7447-40-7) | |
|---------------------------------------|---|
| Log Pow | -0.46 (Estimated value) |
| Bioaccumulative potential | Bioaccumulation: not applicable. Not established. |

| wax (paraffins- petroleum) (64771-72-8) | |
|--|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |

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| | |
|---|--|
| sulfur (7704-34-9) | |
| Log Pow | 0.23 (Estimated value) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). Not established. |
| Calcium Sulfate Hemihydrate (13397-24-5) | |
| Bioaccumulative potential | Not established. |
| urea (57-13-6) (57-13-6) | |
| BCF fish 1 | 1 (72 h; Brachydanio rerio; Fresh water) |
| BCF other aquatic organisms 1 | 11700 (Chlorella sp.) |
| Log Pow | < -1.73 (Experimental value; EU Method A.8: Partition Coefficient) |
| Bioaccumulative potential | Bioaccumulation: not applicable. Not established. |
| iron(II,III)oxide (1317-61-9) | |
| Bioaccumulative potential | No bioaccumulation data available. Not established. |
| ammonium sulfate (7783-20-2) (7783-20-2) | |
| Log Pow | -5.1 |
| Bioaccumulative potential | Bioaccumulation: not applicable. Not established. |

12.4. Mobility in soil

| | |
|---------------------------|--------------------|
| sulfur (7704-34-9) | |
| Ecology - soil | Not toxic to bees. |

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste 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

Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

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:

| | | |
|-----------------------------|-------------------|---|
| wax (paraffins- petroleum) | CAS No 64771-72-8 | % |
| Polymer Coating | CAS No | % |
| Calcium Sulfate Hemihydrate | CAS No 13397-24-5 | % |

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

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15.2. International regulations

CANADA

No additional information available

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

sulfur (7704-34-9)

U.S. - New Jersey - Right to Know Hazardous Substance List

Calcium Sulfate Hemihydrate (13397-24-5)

U.S. - New Jersey - Right to Know Hazardous Substance List

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:

| | |
|------|----------------------------------|
| 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.