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

SECTION 1: Identification of the su	ubstance/mixture an	d of the company/u	ndertaking	
1.1. Product identifier				
Product form	: Mixture			
Product name	: TransFuse 15-0-7			
Product code	: M77712			
1.2. Relevant identified uses of the su	bstance or mixture and u	ses advised against		
1.3. Details of the supplier of the safe	y data sheet			
JR Simplot Company Boise, ID 83707 T 1-208-336-2110				
1.4. Emergency telephone number				
Emergency number	: CHEMTREC 1-800-	424-9300		
SECTION 2: Hazards identification				
2.1. Classification of the substance of	mixture			
Classification (GHS-US)				
Skin Irrit. 2 H315 Eye Irrit. 2B H320				
Full text of H-phrases: see section 16				
2.2. Label elements				
GHS-US labeling Hazard pictograms (GHS-US)				
Signal word (GHS-US)	GHS07 : Warning			
Hazard statements (GHS-US)	: H315 - Causes skin H320 - Causes eye i			
Precautionary statements (GHS-US)	P302 + P352 - If on P305+P351+P338 - lenses, if present an P321 - Specific treat P332 + P313 - If skit P337 + P313 - If eye	ve gloves/protective cloth skin: Wash with plenty of v	water/ y with water for sing dical advice/atte dical advice/atte	several minutes. Remove contact
2.3. Other hazards				
No additional information available				
2.4. Unknown acute toxicity (GHS-US				
No data available				
SECTION 3: Composition/informat	ion on ingredients			
3.1. Substance				
Not applicable				
3.2. Mixture				
Name	Product ider	tifier	%	Classification (GHS-US)
potassium nitrate	(CAS No) 7757-			Eye Irrit. 2B, H320
citric acid	(CAS No) 77-92	.α		Skin Irrit 2 H315

Name	Product identifier	%	Classification (GHS-US)
potassium nitrate	(CAS No) 7757-79-1		Eye Irrit. 2B, H320
citric acid	(CAS No) 77-92-9		Skin Irrit. 2, H315 Eye Irrit. 2A, H319

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

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	: Assure fresh air breathing. Allow the victim to rest.
ïrst-aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see on this label).
irst-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.
I.2. Most important symptoms and effect	cts, both acute and delayed
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
4.3. Indication of any immediate medica	al 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.
Insuitable extinguishing media	: Do not use a heavy water stream.
5 5	-
5.2. Special hazards arising from the su	: Unknown.
Reactivity	
.3. Advice for firefighters	
irefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
rotection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release mea	sures
.1. Personal precautions, protective eq	quipment and emergency procedures
6.1.1. For non-emergency personnel	
mergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection.
marganay	
mergency procedures	: Ventilate area.
.2. Environmental precautions	
5.2. Environmental precautions Prevent entry to sewers and public waters. Notif	: Ventilate area.
S.2. Environmental precautions Prevent entry to sewers and public waters. Notif S.3. Methods and material for containmental for contain	: Ventilate area.
Environmental precautions Environmental precautions Prevent entry to sewers and public waters. Notif Methods and material for containment Methods for cleaning up	 Ventilate area. iy authorities if liquid enters sewers or public waters. ent and cleaning up Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect
2.2. Environmental precautions Prevent entry to sewers and public waters. Notif 3. Methods and material for containmental for containmental for cleaning up 4. Reference to other sections	 Yentilate area. iy authorities if liquid enters sewers or public waters. ent and 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.
Environmental precautions Prevent entry to sewers and public waters. Notif Methods and material for containment Methods for cleaning up A. Reference to other sections See Heading 8. Exposure controls and personal	 Ventilate area. iy authorities if liquid enters sewers or public waters. ent and 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.
Environmental precautions Prevent entry to sewers and public waters. Notif Methods and material for containment Methods for cleaning up A. Reference to other sections See Heading 8. Exposure controls and personal SECTION 7: Handling and storage	 Ventilate area. iy authorities if liquid enters sewers or public waters. ent and 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.
Environmental precautions Prevent entry to sewers and public waters. Notif Methods and material for containment Methods for cleaning up A. Reference to other sections See Heading 8. Exposure controls and personal SECTION 7: Handling and storage T. Precautions for safe handling	 Ventilate area. iy authorities if liquid enters sewers or public waters. ent and 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. I protection. 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 the statement of th
2. Environmental precautions Prevent entry to sewers and public waters. Notif 3. Methods and material for containment Methods for cleaning up 4. Reference to other sections See Heading 8. Exposure controls and personal SECTION 7: Handling and storage 1. Precautions for safe handling Precautions for safe handling	 Ventilate area. iy authorities if liquid enters sewers or public waters. ent and 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. I protection. Wash hands and other exposed areas with mild soap and water before eating, drinking or
Environmental precautions Prevent entry to sewers and public waters. Notif Methods and material for containment Methods for cleaning up A. Reference to other sections See Heading 8. Exposure controls and personal SECTION 7: Handling and storage T. Precautions for safe handling Precautions for safe handling	 Ventilate area. iy authorities if liquid enters sewers or public waters. ent and 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. I protection. 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 vapor. Wash thoroughly after handling.
S.2. Environmental precautions Prevent entry to sewers and public waters. Notif S.3. Methods and material for containmed Methods for cleaning up S.4. Reference to other sections See Heading 8. Exposure controls and personal SECTION 7: Handling and storage 7.1. Precautions for safe handling Precautions for safe handling Hygiene measures 7.2. Conditions for safe storage, includi	 Yentilate area. Y authorities if liquid enters sewers or public waters. ent and 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. I protection. 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 vapor. Wash thoroughly after handling. Ing any incompatibilities Keep only in the original container in a cool, well ventilated place away from : Keep container
S.2. Environmental precautions Prevent entry to sewers and public waters. Notif S.3. Methods and material for containmed Methods for cleaning up S.4. Reference to other sections See Heading 8. Exposure controls and personal SECTION 7: Handling and storage 7.1. Precautions for safe handling Precautions for safe handling Hygiene measures 7.2. Conditions for safe storage, includi Storage conditions	 Ventilate area. Y authorities if liquid enters sewers or public waters. ent and 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. I protection. 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 vapor. Wash thoroughly after handling. Ing any incompatibilities Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Prevent entry to sewers and public waters. Notif 6.3. Methods and material for containing Methods for cleaning up 6.4. Reference to other sections See Heading 8. Exposure controls and personal SECTION 7: Handling and storage 7.1. Precautions for safe handling Precautions for safe handling Hygiene measures	 Yentilate area. Y authorities if liquid enters sewers or public waters. ent and 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. I protection. 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 vapor. Wash thoroughly after handling. Ing any incompatibilities Keep only in the original container in a cool, well ventilated place away from : Keep container

Safety Data Sheet

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls	
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or 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	: Liquid
Color	: brown
Odor	: characteristic
Odor threshold	: No data available
pH	: 2.5 - 3.5
pH solution	: 2.5 - 3.5
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not classed as a flammable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not classed as a flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	 Water: Solubility in water of component(s) of the mixture : 32 g/100ml 59 g/100ml
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available
9.2. Other information	

No additional information available

SECTIO	DN 10: Stability and reactivity
10.1.	Reactivity
Unknown	
10.2.	Chemical stability
Stable. N	ot established.
10.3.	Possibility of hazardous reactions
Not estab	lished.

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

10.4.	Conditions to avoid
Direct s	unlight. Extremely high or low temperatures.
10.5.	Incompatible materials
Strong a	acids. Strong bases.
10.6.	Hazardous decomposition products
fume. C	Carbon monoxide. Carbon dioxide.
0-0-	

SECT	ION 11: Toxicological information
11.1.	Information on toxicological effects

Acute toxicity

: Not classified

potassium nitrate (7757-79-1)	
LD50 oral rat	3750 mg/kg (Rat)
LD50 dermal rat	> 5000 mg/kg
ATE US (oral)	3750.0000000 mg/kg body weight
citric acid (77-92-9)	
LD50 oral rat	3000 mg/kg (Rat; Literature study)
ATE US (oral)	3000.0000000 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation.
	pH: 2.5 - 3.5
Serious eye damage/irritation	: Causes eye irritation.
	pH: 2.5 - 3.5
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
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 skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.

SECTION 12: Ecological information

Toxicity 12.1.

potassium nitrate (7757-79-1)		
LC50 fish 1	162 mg/l (96 h; Pisces; Lethal)	
LC50 other aquatic organisms 1	39 mg/l (96 h; Daphnia magna)	
EC50 other aquatic organisms 1	200 - 1000 mg/l (Plankton; Nocivity test)	
LC50 fish 2	1378 mg/l (Poecilia reticulata)	
LC50 other aquatic organisms 2	490 mg/l (48 h; Daphnia magna)	
TLM fish 1	3000 mg/l (96 h; Lepomis macrochirus)	
TLM fish 2	162 mg/l (96 h; Gambusia affinis)	
Threshold limit other aquatic organisms 1	39 mg/l (96 h; Daphnia magna)	
Threshold limit other aquatic organisms 2	490 mg/l (48 h; Daphnia magna)	
citric acid (77-92-9)		
LC50 fish 1	2600 mg/l (48 h; Leuciscus idus; pH = 7)	
EC50 Daphnia 1	120 mg/l (72 h; Daphnia magna; pH < 7)	
LC50 fish 2	1516 mg/l (96 h; Lepomis macrochirus)	

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

citric acid (77-92-9)		
EC50 Daphnia 2	85 mg/l (Daphnia magna)	
Threshold limit algae 1	80 mg/l (192 h; Microcystis aeruginosa; Reproduction)	
Threshold limit algae 2	640 mg/l (168 h; Scenedesmus quadricauda)	
2.2. Persistence and degradability		
TransFuse 15-0-7		
Persistence and degradability	Not established.	
potassium nitrate (7757-79-1)		
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	
citric acid (77-92-9)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Not established.	
Biochemical oxygen demand (BOD)	$0.420 \text{ g} \text{ O}_2/\text{g}$ substance	
Chemical oxygen demand (COD)	$0.728 \text{ g } \text{O}_2/\text{g substance}$	
ThOD	0.686 g O ₂ /g substance	
BOD (% of ThOD)	(20 day(s)) 0.89	
2.3. Bioaccumulative potential		
TransFuse 15-0-7		
Bioaccumulative potential	Not established.	
potassium nitrate (7757-79-1)		
Bioaccumulative potential	No bioaccumulation data available. Not established.	
citric acid (77-92-9)		
Log Pow	-1.72 (Experimental value)	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.	
I2.4. Mobility in soil No additional information available		
2.5. Other adverse effects		
ffect on ozone layer	: No additional information available	
Effect on the global warming	: No known ecological damage caused by this product.	
Other information	: Avoid release to the environment.	
SECTION 13: Disposal considera	tions	
3.1. Waste treatment methods		
Vaste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.	
cology - waste materials	: Avoid release to the environment.	
SECTION 14: Transport informati		
n accordance with DOT		
Not regulated for transport		
Additional information		
Other information	: No supplementary information available.	
ADR		
ransport document description	:	
rependent by sec		
ransport by sea		
lo additional information available		
01/30/2015	EN (English US)	5/6

Safety Data Sheet

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

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA No additional information available

EU-Regulations No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

: : None.

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

potassium nitrate (7757-79-1)
U.S New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information		

Full text of H-phrases: see section 16:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A	
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B	
Skin Irrit. 2	Skin corrosion/irritation Category 2	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H320	Causes eye irritation	

SDS US (GHS HazCom 2012)

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