Best One-shot

Safety Data Sheet

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

Revision date: 11/18/2021 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Best One-shot

Product code : M770349

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilizer/Herbicide

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 1	H318 Causes serious eye damage.
Skin sensitisation, Category 1	H317 May cause an allergic skin reaction.
Carcinogenicity, Category 2	H351 Suspected of causing cancer.
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) : Danger

Hazard statements (GHS US) :
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H351 - Suspected of causing cancer.

Precautionary statements (GHS US) :
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
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.
P272 - Contaminated work clothing must not be allowed out of the workplace
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.
P308+P313 - If exposed or concerned: Get medical attention
P310 - Immediately call a poison center/doctor/…
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
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362 - Take off contaminated clothing.

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

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

Name	Product identifier	%	GHS-US classification
ammonium sulfate	(CAS-No.) 7783-20-2		Eye Irrit. 2B, H320 STOT SE 3, H335
diammoniumhydrogenphosphate	(CAS-No.) 7783-28-0		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
potassium chloride	(CAS-No.) 7447-40-7		Not classified
Iron Oxysulfate			Eye Irrit. 2B, H320
2,4-dichlorophenoxyacetic acid	(CAS-No.) 94-75-7		Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 Aquatic Chronic 3, H412
dicamba	(CAS-No.) 1918-00-9		Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Eye Dam. 1, H318 Aquatic Chronic 3, H412
Dithiopyr	(CAS-No.) 97886-45-8		Not classified
mecoprop-P	(CAS-No.) 16484-77-8		Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411

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 : On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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

Best One-shot
No additional information available

2,4-dichlorophenoxyacetic acid (94-75-7)
No additional information available

dicamba (1918-00-9)
No additional information available

Dithiopyr (97886-45-8)
No additional information available

mecoprop-P (16484-77-8)
No additional information available

ammonium sulfate (7783-20-2)
No additional information available

diammoniumhydrogenphosphate (7783-28-0)
No additional information available

potassium chloride (7447-40-7)
No additional information available

Iron Oxysulfate
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	:	Solid
Appearance	:	Dark grey granules.
Colour	:	Dark Gray
Odour	:	Slight Acidic
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
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	:	No data available
Density	:	63 lbs/ft^3
Solubility	:	No data available
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

No additional information available

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

Oxidizing agent. Prolonged contact may cause oxidation of unprotected metals. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Extremely high temperatures. The product may reach melting point and decompose to release NH3, SOx, POx, or CN. 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

2,4-dichlorophenoxyacetic acid (94-75-7)	
LD50 oral rat	630-774,Rat; Other; Experimental value; 375 mg/kg; Rat
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Experimental value; Other)

dicamba (1918-00-9)	
LD50 oral rat	1039 mg/kg (Rat)
LD50 dermal rat	2000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)

Dithiopyr (97886-45-8)	
LD50 oral rat	≥ 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg

ammonium sulfate (7783-20-2)	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg

potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg (Rat)

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

2,4-dichlorophenoxyacetic acid (94-75-7)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

2,4-dichlorophenoxyacetic acid (94-75-7)	
STOT-single exposure	May cause respiratory irritation.

ammonium sulfate (7783-20-2)	
STOT-single exposure	May cause respiratory irritation.

diammoniumhydrogenphosphate (7783-28-0)	
STOT-single exposure	May cause respiratory irritation.

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

Ecology - general : Environmental Hazards
This pesticide may be toxic to fish and aquatic invertebrates and may adversely affect non-target plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.
This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

2,4-dichlorophenoxyacetic acid (94-75-7)	
LC50 fish 1	31 – 96 mg/l (96 h; Cyprinus carpio)
EC50 Daphnia 1	90 mg/l (48 h; Daphnia magna)
LC50 fish 2	82 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM fish 1	375 mg/l (48 h; Lepomis macrochirus)
Threshold limit algae 1	< 0.1 mg/l (Scenedesmus quadricauda; Chronic)
Threshold limit algae 2	26.4 mg/l (120 h; Selenastrum capricornutum; Growth rate)

dicamba (1918-00-9)	
LC50 fish 1	23 mg/l (96 h; Lepomis macrochirus)
LC50 other aquatic organisms 1	10 – 100 mg/l (96 h)
EC50 Daphnia 1	> 100 mg/l (48 h; Daphnia magna; Locomotor effect)
LC50 fish 2	28 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM fish 1	40 ppm (48 h; Lepomis macrochirus)
TLM fish 2	35 ppm 48 h; Salmo gairdneri (Oncorhynchus mykiss)
Threshold limit other aquatic organisms 1	10 - 100,96 h

ammonium sulfate (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)

diammoniumhydrogenphosphate (7783-28-0)	
LC50 fish 1	155 ppm (96 h; Pimephales promelas)
TLM fish 1	100 - 1000,96 h; Pisces
TLM other aquatic organisms 1	100 - 1000,96 h

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)

12.2. Persistence and degradability

Best One-shot	
Persistence and degradability	Not established.

2,4-dichlorophenoxyacetic acid (94-75-7)	
Persistence and degradability	Readily biodegradable in water. Inhibition of nitrification. Biodegradable in the soil. No (test)data on mobility of the substance available. May cause long-term adverse effects in the environment.

dicamba (1918-00-9)	
Persistence and degradability	May cause long-term adverse effects in the environment.

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

diammoniumhydrogenphosphate (7783-28-0)	
Persistence and degradability	Biodegradability in water: no data available. 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

Iron Oxysulfate	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Best One-shot	
Bioaccumulative potential	Not established.

2,4-dichlorophenoxyacetic acid (94-75-7)	
BCF fish 1	< 10 (3 days; Leuciscus idus)
BCF other aquatic organisms 1	6 (24 h; Algae)
Partition coefficient n-octanol/water (Log Pow)	2.58 – 2.83 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

dicamba (1918-00-9)	
Partition coefficient n-octanol/water (Log Pow)	2.21
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

ammonium sulfate (7783-20-2)	
Partition coefficient n-octanol/water (Log Pow)	-5.1
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

diammoniumhydrogenphosphate (7783-28-0)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

potassium chloride (7447-40-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.46 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Iron Oxysulfate	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

dicamba (1918-00-9)	
Ecology - soil	Not toxic to bees.

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.

Additional information : STORAGE AND DISPOSAL
Do not contaminate water, food, or feed by storage or disposal.
PESTICIDE STORAGE: Keep in original container in a cool, dry area, away from extreme heat and direct sunlight. Do not store near food, feed, seeds or other pesticides.
PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER DISPOSAL: Paper and plastic bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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

Best One-shot
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

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:

dicamba	CAS-No. 1918-00-9	%
Dithiopyr	CAS-No. 97886-45-8	%
mecoprop-P	CAS-No. 16484-77-8	%
Iron Oxysulfate	CAS-No.	%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

2,4-dichlorophenoxyacetic acid	CAS-No. 94-75-7	%
dicamba	CAS-No. 1918-00-9	%

2,4-dichlorophenoxyacetic acid (94-75-7)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb

dicamba (1918-00-9)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

2,4-dichlorophenoxyacetic acid (94-75-7)
Listed on the Canadian DSL (Domestic Substances List)

Dithiopyr (97886-45-8)
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

ammonium sulfate (7783-20-2)
Listed on the Canadian DSL (Domestic Substances List)

diammoniumhydrogenphosphate (7783-28-0)
Listed on the Canadian DSL (Domestic Substances List)

potassium chloride (7447-40-7)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

2,4-dichlorophenoxyacetic acid (94-75-7)
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**
2,4-dichlorophenoxyacetic acid(94-75-7)	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
dicamba(1918-00-9)	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
ammonium sulfate(7783-20-2)	U.S. - Massachusetts - Right To Know 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

Revision date	:	11/18/2021
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.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H320	Causes eye irritation
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SDS US (GHS HazCom 2012)