

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

SECTION 1. IDENTIFICATION

Product identifier

Product name Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Other means of identification

Product code 50000040

Recommended use of the chemical and restrictions on use

Recommended use

Restrictions on use Use as recommended by the label.

Details of the supplier of the safety data sheet

Manufacturer FMC Corporation
2929 WALNUT ST
PHILADELPHIA PA 19104
USA
(215) 299-6000 (General Information)
SDS-Info@fmc.com

Emergency telephone

For leak, fire, spill or accident emergencies, call:
1 800 / 424-9300 (CHEMTREC - U.S.A.)
1 703 / 741-5970 (CHEMTREC - International)
1 703 / 527-3887 (CHEMTREC - Alternate)

Medical emergency:
U.S.A. & Canada: +1 800 / 331-3148
All other countries: +1 651 / 632-6793 (Collect)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

: Category 2 (Thyroid, Nervous system)

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H373 May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1 Revision Date: 10/06/2022 SDS Number: 50000040 Date of last issue: -
Date of first issue: 02/01/2018

Precautionary Statements : **Prevention:**
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
Response:
P314 Get medical advice/ attention if you feel unwell.
Disposal:
P501 Dispose of contents and container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
thifensulfuron-methyl (ISO)	79277-27-3	33.33
Tribenuron-methyl	101200-48-0	16.67
sodium carbonate	497-19-8	$\geq 10 - < 20$
Phosphoric acid, trisodium salt, decahydrate	10101-89-0	$\geq 1 - < 5$

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Remove victim from exposure and then have him lie down in the recovery position.
Call a physician immediately.
Show this safety data sheet to the doctor in attendance.
Keep at rest.
Keep warm and in a quiet place.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : If on clothes, remove clothes.
In case of skin contact
Wash off immediately with soap and plenty of water.
If skin irritation persists, call a physician.

In case of eye contact : Rinse immediately with plenty of water for at least 15 minutes.
Remove contact lenses.
If eye irritation persists, consult a specialist.

If swallowed : Do not induce vomiting without medical advice.

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : May cause damage to organs through prolonged or repeated exposure.

Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry chemical, CO₂, water spray or regular foam.

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Thermal decomposition can lead to release of irritating gases and vapors.
Carbon oxides
Nitrogen oxides (NO_x)
Sulfur oxides

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against : Avoid dust formation.

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with To- talSol(R) soluble granules)

Version 1.1 Revision Date: 10/06/2022 SDS Number: 50000040 Date of last issue: -
Date of first issue: 02/01/2018

- fire and explosion Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapors/dust.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
Keep only in original packaging.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0	STEL	5 mg/m3	US WEEL

Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
- Hand protection
Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
- Remarks : The suitability for a specific workplace should be discussed

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

Impervious clothing

Protective measures : Plan first aid action before beginning work with this product.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Contaminated work clothing should not be allowed out of the workplace.
Wash hands and face before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granular

Color : light brown

Odor : slight, acidic

Odor Threshold : Not applicable

pH : 9.1 (68 °F / 20 °C)
Concentration: 10 g/l

Flash point : Not applicable

Flammability (solid, gas) : Does not sustain combustion.

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

Bulk density	: 692 kg/m ³ packed
Solubility(ies) Water solubility	: soluble
Autoignition temperature	: 725 °F / 385 °C
Viscosity Viscosity, dynamic	: No data available
Explosive properties	: Not explosive
Particle size	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed. Dust may form explosive mixture in air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	: Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg Method: Fixed Dose Method Remarks: (Data on the product itself)
Acute inhalation toxicity	: Acute toxicity estimate: > 10 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method Acute toxicity estimate: 6.18 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version	Revision Date:	SDS Number:	Date of last issue: -
1.1	10/06/2022	50000040	Date of first issue: 02/01/2018

Method: OECD Test Guideline 402
Remarks: (Data on the product itself)
Information source: Internal study report

LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
Remarks	:	(Data on the product itself)

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	(Data on the product itself)

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Test Type	:	Maximization Test
Species	:	Guinea pig
Assessment	:	Not a skin sensitizer.
Method	:	US EPA Test Guideline OPPTS 870.2600
Result	:	Animal test did not cause sensitization by skin contact.
Remarks	:	(Data on the product itself)

Germ cell mutagenicity

Not classified based on available information.

Components:

thifensulfuron-methyl (ISO):

Genotoxicity in vitro	:	Test system: Chinese hamster ovary cells Method: OECD Test Guideline 476
-----------------------	---	---

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

Result: negative
Remarks: In vitro tests did not show mutagenic effects

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Tribenuron-methyl:

Germ cell mutagenicity - Assessment : Did not show mutagenic effects in animal experiments.

sodium carbonate:

Genotoxicity in vitro : Test Type: reverse mutation assay
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative
Remarks: Based on data from similar materials

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Phosphoric acid, trisodium salt, dodecahydrate:

Genotoxicity in vitro : Test Type: gene mutation test
Method: OECD Test Guideline 490
Result: negative
Remarks: Based on data from similar materials

Test Type: Micronucleus test
Method: OECD Test Guideline 487
Result: negative

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

Carcinogenicity

Not classified based on available information.

Components:

thifensulfuron-methyl (ISO):

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

Tribenuron-methyl:

Remarks : No significant adverse effects were reported

Carcinogenicity - Assessment : Did not show carcinogenic effects in animal experiments.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

thifensulfuron-methyl (ISO):

Reproductive toxicity - Assessment : Did not show teratogenic effects in animal experiments.

Tribenuron-methyl:

Reproductive toxicity - Assessment : No toxicity to reproduction
Animal testing did not show any effects on fetal development.,
Did not show teratogenic effects in animal experiments.

sodium carbonate:

Effects on fetal development : Species: Rat
Application Route: Oral
Dose: 2.45, 11.4, 52.9, 245 milligram per kilogram
Duration of Single Treatment: 6 - 15 d
General Toxicity Maternal: NOAEL: > 245 mg/kg body weight
Teratogenicity: NOAEL: > 245 mg/kg body weight
Result: negative

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

Phosphoric acid, trisodium salt, dodecahydrate:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Dose: 1000 mg/kgbw
General Toxicity Parent: NOAEL: 1,000 mg/kg bw/day
General Toxicity F1: NOAEL: 1,000 mg/kg bw/day
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: reproductive and developmental toxicity study
Species: Rat
Application Route: Oral
Dose: 4.1, 19, 88.3, 410 mg/kgbw/day
Duration of Single Treatment: 20 d
General Toxicity Maternal: NOAEL: > 410 mg/kg bw/day
Embryo-fetal toxicity: NOAEL: > 410 mg/kg bw/day

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

Result: negative
Remarks: Based on data from similar materials

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

STOT-single exposure

Not classified based on available information.

Components:

Tribenuron-methyl:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Phosphoric acid, trisodium salt, dodecahydrate:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

Product:

Remarks : Refer to acute toxicity and/or repeated dose toxicity data for more information on target organs if applicable.

Repeated dose toxicity

Components:

thifensulfuron-methyl (ISO):

Species : Rat
LOAEL : ca. 200 mg/kg
Exposure time : 90 d
Target Organs : No specific target organs noted
Symptoms : Reduced body weight

Tribenuron-methyl:

Species : Rabbit
LOAEL : 80 mg/kg
Target Organs : Thyroid, Nervous system
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Remarks : Increased mortality or reduced survival

sodium carbonate:

Species : Rat, male and female
NOAEL : > 0.01 mg/kg

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version	Revision Date:	SDS Number:	Date of last issue: -
1.1	10/06/2022	50000040	Date of first issue: 02/01/2018

Application Route : inhalation (dust/mist/fume)
Test atmosphere : dust/mist

Phosphoric acid, trisodium salt, dodecahydrate:

Species : Dog, female
NOAEL : 492.77 mg/kg bw/day
LOAEL : 1433.56 mg/kg bw/day
Application Route : Oral - feed
Exposure time : 90 d
Dose : 129.31,492.77,1433.56mg/kgbw/d
Target Organs : Kidney
Remarks : Based on data from similar materials

Species : Dog, male
NOAEL : 322.88 mg/kg bw/day
LOAEL : 1107.12 mg/kg bw/day
Application Route : Oral - feed
Exposure time : 90 d
Dose : 94.23,322.88,1107.12mg/kgbw/da
Target Organs : Kidney
Remarks : Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

Components:

Tribenuron-methyl:

The substance does not have properties associated with aspiration hazard potential.

Further information

Product:

Remarks : Information presented in this Section conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.

Remarks : No data available

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 130 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: (Data on the product itself)
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 130 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: (Data on the product itself)
- Toxicity to algae/aquatic plants : EC50 (Lemna gibba (duckweed)): 0.0029 mg/l
End point: Frond
Exposure time: 14 d
Method: US EPA Test Guideline OPP 122-2 & 123-2
Remarks: (Data on the product itself)
Information source: Internal study report
- ErC50 (Pseudokirchneriella subcapitata (microalgae)): > 0.16 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: (Data on the product itself)
Information source: Internal study report
- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg
Exposure time: 14 d
Method: OECD Test Guideline 207
GLP: yes
Remarks: Information source: Internal study report
- Toxicity to terrestrial organisms : LD50 (Apis mellifera (bees)): > 112.2 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity
Method: OECD Test Guideline 213
GLP: yes
Remarks: Information source: Internal study report
- LD50 (Apis mellifera (bees)): > 100 µg/bee
Exposure time: 48 h
End point: Acute contact toxicity
Method: OECD Test Guideline 214
GLP: yes
Remarks: Information source: Internal study report

Components:

thifensulfuron-methyl (ISO):

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

- | | | |
|--|---|---|
| Toxicity to fish | : | LC50 (<i>Salmo gairdneri</i>): 100 mg/l
Exposure time: 96 h

LC50 (<i>Oncorhynchus mykiss</i> (rainbow trout)): > 250 mg/l
Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (<i>Daphnia magna</i> (Water flea)): 470 mg/l
Exposure time: 48 h |
| Toxicity to algae/aquatic plants | : | IC50 (green algae): 0.0159 mg/l
Exposure time: 72 h

ErC50 (<i>Raphidocelis subcapitata</i> (freshwater green alga)): 1.4 mg/l
Exposure time: 72 h

EC50 (<i>Lemna minor</i> (duckweed)): 1.3 µg/l |
| Toxicity to fish (Chronic toxicity) | : | NOEC (<i>Salmo gairdneri</i>): 250 mg/l
Exposure time: 28 d

NOEC (<i>Oncorhynchus mykiss</i> (rainbow trout)): 10.6 mg/l
Exposure time: 21 d |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (<i>Daphnia magna</i> (Water flea)): 100 mg/l
Exposure time: 21 d |
| Toxicity to soil dwelling organisms | : | LC50 (<i>Eisenia fetida</i> (earthworms)): > 2,000 mg/kg |
| Toxicity to terrestrial organisms | : | LD50 (<i>Anas platyrhynchos</i> (Mallard duck)): > 2,510 mg/kg

LD50 (<i>Anas platyrhynchos</i> (Mallard duck)): > 5,620 ppm
Remarks: Dietary

LD50 (<i>Colinus virginianus</i> (Bobwhite quail)): > 5,620 ppm

LD50 (<i>Apis mellifera</i> (bees)): > 7.1 µg/bee
End point: Acute oral toxicity

LD50 (<i>Apis mellifera</i> (bees)): > 100 µg/bee
End point: Acute contact toxicity |

Ecotoxicology Assessment

- | | | |
|--------------------------|---|---|
| Acute aquatic toxicity | : | Very toxic to aquatic life. |
| Chronic aquatic toxicity | : | Very toxic to aquatic life with long lasting effects. |

Tribenuron-methyl:

- | | | |
|------------------|---|--|
| Toxicity to fish | : | LC50 (<i>Oncorhynchus mykiss</i> (rainbow trout)): 738 mg/l |
|------------------|---|--|

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with To-talSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Crustaceans): > 320 mg/l
Exposure time: 48 h

EC50 (Daphnia magna (Water flea)): > 894 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.0208 mg/l
Exposure time: 120 h

EC50 (Lemna gibba (duckweed)): 0.00424 mg/l
Exposure time: 14 d

Toxicity to fish (Chronic toxicity) : NOEC (Cyprinodon variegatus (sheepshead minnow)): 114 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211

NOEC (Oncorhynchus mykiss (rainbow trout)): 560 mg/l
Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 41 mg/l
Exposure time: 21 d

Toxicity to soil dwelling organisms : NOEC (Eisenia fetida (earthworms)): 3.2 mg/kg
Exposure time: 56 d

Toxicity to terrestrial organisms : LD50 (Colinus virginianus (Bobwhite quail)): > 2,250 mg/kg

LD50 (Colinus virginianus (Bobwhite quail)): > 5,620 ppm
Remarks: Dietary

LD50 (Anas platyrhynchos (Mallard duck)): > 5,620 ppm
Remarks: Dietary

LD50 (Apis mellifera (bees)): > 98.4 µg/bee
Exposure time: 48 h
End point: Acute contact toxicity

LD50 (Apis mellifera (bees)): > 9.1 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version	Revision Date:	SDS Number:	Date of last issue: -
1.1	10/06/2022	50000040	Date of first issue: 02/01/2018

sodium carbonate:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia (water flea)): 200 mg/l
Exposure time: 48 h
Test Type: semi-static test

Phosphoric acid, trisodium salt, dodecahydrate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: EU Method C3
Remarks: Based on data from similar materials

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: EU Method C3
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (activated sludge): 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

NOEC (activated sludge): 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 3,500 mg/kg
Exposure time: 14 d
Method: OECD Test Guideline 207
Remarks: Based on data from similar materials

Persistence and degradability

Components:

thifensulfuron-methyl (ISO):

Biodegradability : Remarks: Not readily biodegradable.
Primary degradation half-lives vary with circumstances, from a

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with To- talSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

few days to a few weeks in aerobic water and soil.

Tribenuron-methyl:

Biodegradability : Biodegradation: 29.4 %
Exposure time: 28 d

sodium carbonate:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not bioaccumulate.
Estimation based on data obtained on active ingredient.

Components:

thifensulfuron-methyl (ISO):

Bioaccumulation : Bioconcentration factor (BCF): 1
Remarks: Does not bioaccumulate.

Tribenuron-methyl:

Bioaccumulation : Bioconcentration factor (BCF): < 1
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: -0.38

sodium carbonate:

Bioaccumulation : Remarks: Does not bioaccumulate.

Mobility in soil

Product:

Distribution among environmental compartments : Remarks: Under normal conditions the active ingredient/s is/are of high to intermediate mobility in soil. There is a potential for leaching to groundwater.

Components:

thifensulfuron-methyl (ISO):

Distribution among environmental compartments : Koc: 28.3, log Koc: 1.45
Remarks: Highly mobile in soils

Stability in soil :

Tribenuron-methyl:

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version	Revision Date:	SDS Number:	Date of last issue: -
1.1	10/06/2022	50000040	Date of first issue: 02/01/2018

Distribution among environmental compartments : Remarks: Under normal conditions the active ingredient/s is/are of high to intermediate mobility in soil. There is a potential for leaching to groundwater.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Environmental hazards
Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.
Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Dispose of in accordance with the European Directives on waste and hazardous waste.

Contaminated packaging : Empty remaining contents.
Do not re-use empty containers.
Packaging that is not properly emptied must be disposed of as the unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version	Revision Date:	SDS Number:	Date of last issue: -
1.1	10/06/2022	50000040	Date of first issue: 02/01/2018

N.O.S.
(Thifensulfuron-methyl, Tribenuron-methyl)

Class	:	9
Subsidiary risk	:	ENVIRONM.
Packing group	:	III
Labels	:	9 (ENVIRONM.)

IATA-DGR

UN/ID No.	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Thifensulfuron-methyl, Tribenuron-methyl)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	956
Packing instruction (passenger aircraft)	:	956
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl, Tribenuron-methyl)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Remarks	:	Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.
---------	---	---

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Tribenuron-methyl	101200-48-0	>= 10 - < 20 %
-------------------	-------------	----------------

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0	>= 1 - < 5 %
--	------------	--------------

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0
--	------------

Pennsylvania Right To Know

D-Glucopyranose, 4-O-.beta.-D-galactopyranosyl-, monohydrate	10039-26-6
thifensulfuron-methyl (ISO)	79277-27-3
Tribenuron-methyl	101200-48-0
sodium carbonate	497-19-8
Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version 1.1	Revision Date: 10/06/2022	SDS Number: 50000040	Date of last issue: - Date of first issue: 02/01/2018
----------------	------------------------------	-------------------------	--

Product does not contain any listed chemicals

California List of Hazardous Substances

Phosphoric acid, trisodium salt, dodecahydrate 10101-89-0

The ingredients of this product are reported in the following inventories:

TCSI	: Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL.

ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

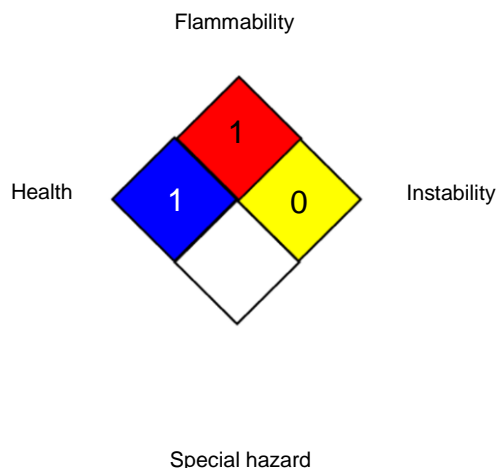
Version
1.1

Revision Date:
10/06/2022

SDS Number:
50000040

Date of last issue: -
Date of first issue: 02/01/2018

NFPA 704:



0 No health threat, 1 Slightly Hazardous, 2 Hazardous, 3 Extreme danger, 4 Deadly

HMIS® IV:

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / STEL : Short-Term TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -

SAFETY DATA SHEET



Harmony(R) Extra SG Herbicide (with TotalSol(R) soluble granules)

Version	Revision Date:	SDS Number:	Date of last issue: -
1.1	10/06/2022	50000040	Date of first issue: 02/01/2018

Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. You can contact FMC Corporation to insure that this document is the most current available from FMC Corporation. No warranty of fitness for any particular purpose, warranty of merchantability or any other warranty, expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. The user is responsible for determining whether the product is fit for a particular purpose and suitable for the user's conditions and methods of use. Since the conditions and methods of use are beyond the control of FMC Corporation, FMC Corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

US / EN

Prepared by:

FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2021 FMC Corporation. All Rights Reserved.

End of Material Safety Data Sheet