



Safety Data Sheet

Impregnator for broadleaf

Safety Data Sheet dated 3/29/2018, version 3

1. IDENTIFICATION

Product identifier

Mixture identification:
Trade name: Impregnator for broadleaf
Other means of identification:
Trade code: 6IMW9400

Recommended use of the chemical and restrictions on use

Recommended use: Surface coating

Restrictions on use:

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:
Sirca S.p.A.

Address:

Viale Roma, 85
35010 S. Dono di Massanzago (PD) - ITALY
Tel. +39 0499322311

Distributed by:

GEMINI INDUSTRIES, INC.
2300 Holloway Drive
El Reno, OK 73036
USA
Tel. 1-800-262-5710
Fax 1-405-262-9310
www.gemini-coatings.com

Competent person responsible for the safety data sheet:

safety@sirca.it

Emergency phone number

For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
1-800-424-9300 / +1 703-527-3887.

2. HAZARD(S) IDENTIFICATION

Classification of the chemical



Warning, Eye Irrit. 2A, Causes serious eye irritation.



Warning, Skin Sens. 1, May cause an allergic skin reaction.

Aquatic Acute 2, Toxic to aquatic life.

Label elements

Hazard pictograms:



Warning

Hazard statements:

H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H401 Toxic to aquatic life.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash your face, hands and every exposed part thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water and soap.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

None

Ingredient(s) with unknown acute toxicity:

None.

Additional classification information

NFPA rating:



HMIS rating:

HEALTH	/	1
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

>= 3% - < 5% 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve

REACH No.: 01-2119475108-36-xxxx, Index number: 603-014-00-0, CAS: 111-76-2, EC: 203-905-0



A.3/2A Eye Irrit. 2A H319



A.2/2 Skin Irrit. 2 H315



A.1/4/Oral Acute Tox. 4 H302



A.1/4/Dermal Acute Tox. 4 H312



A.1/4/Inhal Acute Tox. 4 H332

>= 2% - < 2.5% 4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl

REACH No.: 01-2119968566-20-xxxx, CAS: 2226-96-2, EC: 218-760-9



A.1/4/Oral Acute Tox. 4 H302



A.3/1 Eye Dam. 1 H318



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US-HAE/C3 Aquatic Chronic 3 H412

>= 0.25% - < 0.5% 3-Iodo-2-propynylbutylcarbamate
Index number: 616-212-00-7, CAS: 55406-53-6, EC: 259-627-5



A.1/4/Inhal Acute Tox. 4 H332



A.8/3 STOT SE 3 H335



A.1/4/Oral Acute Tox. 4 H302



A.3/1 Eye Dam. 1 H318



A.4.2/1 Skin Sens. 1 H317



US-HAE/A1 Aquatic Acute 1 H400

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water.
Carbon dioxide (CO₂).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

Hazardous combustion products:

None

Explosive properties:

N.A.

Oxidizing properties:

N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear personal protection equipment.
Remove all sources of ignition.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Remove persons to safety.
Use appropriate respiratory protection.

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See protective measures under point 7 and 8.
Methods and materials for containment and cleaning up
Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Do not use on extensive surface areas in premises where there are occupants.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
Storage temperature:
Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2
(OEL (IT)) - TWA(8h): 98 mg/m³, 20 ppm - STEL: 246 mg/m³, 50 ppm - Behaviour: Binding - Notes: pelle
EU - TWA(8h): 98 mg/m³, 20 ppm - STEL: 246 mg/m³, 50 ppm - Notes: Skin
ACGIH - TWA(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr
MAK - TWA(8h): 49 mg/m³, 10 ppm - STEL: 246 mg/m³, 50 ppm - Notes: Skin

DNEL Exposure Limit Values

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2
Worker Industry: 89 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Worker Industry: 135 ppm - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 50 ppm - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 75 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 20 ppm - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Exposure: Human Oral - Frequency: Short Term, systemic effects
Exposure: Human Oral - Frequency: Long Term, systemic effects
Consumer: 44.5 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Consumer: 426 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Consumer: 123 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Consumer: 38 mg/Kg-bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 49 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 13.4 mg/m³ - Exposure: Human Oral - Frequency: Short Term, systemic effects
Consumer: 3.2 mg/m³ - Exposure: Human Oral - Frequency: Long Term, systemic effects

4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl - CAS: 2226-96-2

Worker Industry: 1.2 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 0.3 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 8 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Consumer: 0.3 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 0.2 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 4 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Consumer: 7 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

PNEC Exposure Limit Values

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2

Target: Fresh Water - Value: 8.8 mg/l
Target: Marine water - Value: 0.88 mg/l
Target: Microorganisms in sewage treatments - Value: 463 mg/l
Target: Freshwater sediments - Value: 34.6 mg/kg
Target: Marine water sediments - Value: 3.46 mg/kg
Target: Soil (agricultural) - Value: 2.8 mg/l
Target: STP - Value: 463 mg/l

4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl - CAS: 2226-96-2

Target: Fresh Water - Value: 0.03 mg/l
Target: Marine water - Value: 0.003 mg/l
Target: occasional emission - Value: 0.54 mg/l
Target: Freshwater sediments - Value: 0.126 mg/kg
Target: Marine water sediments - Value: 0.0169 mg/kg
Target: Soil (agricultural) - Value: 0.031 mg/kg
Target: Microorganisms in sewage treatments - Value: 430 mg/l

Appropriate engineering controls:

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None
 Individual protection measures
 Eye protection:
 Use close fitting safety goggles, don't use eye lens.
 Protection for skin:
 Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
 Protection for hands:
 Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.
 Respiratory protection:
 Not needed for normal use.
 Thermal Hazards:
 None

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour:	liquid
Odour:	characteristic
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	< 1° C
Initial boiling point and boiling range:	> 55° C
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	>=93°C (>= 199°F)
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	1.0150 Kg/l a 20°C
Solubility in water:	N.A.
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	> 250° C
Decomposition temperature:	N.A.
Viscosity (typical value):	50.00 " Din cup # 2
Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

10. STABILITY AND REACTIVITY

Reactivity
 Stable under normal conditions
 Chemical stability
 Stable under normal conditions
 Possibility of hazardous reactions
 No dangerous reaction is stored and used appropriately.
 Conditions to avoid
 Stable under normal conditions.
 Incompatible materials
 None in particular.
 Hazardous decomposition products
 None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
 Toxicological information of the product:
 N.A.
 Toxicological information of the main substances found in the product:
 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2
 a) acute toxicity:
 Test: LD50 - Route: Oral - Species: Rat 470 mg/kg
 Test: LD50 - Route: Skin - Species: Rabbit 220 mg/kg
 Test: LC50 - Route: Inhalation Vapour - Species: Rat male 2.4 mg/l - Duration: 4h
 Test: LC50 - Route: Inhalation Vapour - Species: Rat Female 2.2 mg/l - Duration: 4h
 Test: LD50 - Route: Skin - Species: Rat 220 mg/kg
 b) skin corrosion/irritation:
 Test: Skin Irritant - Species: Rabbit Yes - Notes: Provoca irritazione cutanea
 Test: Eye Irritant - Species: Rabbit Yes - Notes: provoca grave irritazione oculare
 4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl - CAS: 2226-96-2
 a) acute toxicity:
 Test: LD50 - Route: Oral - Species: Rat = 1053 mg/kg - Notes: (OECD - Guide line 401)

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- Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg
- b) skin corrosion/irritation:
Test: Skin Corrosive - Species: Rabbit Negative - Notes: (OECD - Guide Line 404)
- c) serious eye damage/irritation:
Test: Eye Corrosive - Species: Rabbit Positive - Notes: (OECD - Guide Line 405)
- d) respiratory or skin sensitisation:
Test: Skin Sensitization - Species: Cavia porcellus Negative - Notes: (OECD - Guide Line 406)
Test: Inhalation Sensitization - Species: Cavia porcellus Negative - Notes: (OECD - Guide Line 406)
- 3-Iodo-2-propynylbutylcarbamate - CAS: 55406-53-6
- a) acute toxicity:
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
Test: LD50 - Route: Skin - Species: Rat = 1470 mg/kg
Test: LD50 - Route: Oral - Species: Rat Female = 1056 mg/kg
Test: LD50 - Route: Oral - Species: Rat male = 1795 mg/kg
- b) skin corrosion/irritation:
Test: Eye Irritant - Species: Rabbit Yes
Test: Skin Irritant - Species: Rabbit Yes
- d) respiratory or skin sensitisation:
Test: Skin Sensitization - Species: Cavia porcellus Yes
- e) germ cell mutagenicity:
Test: Mutagenesis - Species: Generic Bacteria Negative

Substance(s) listed on the NTP report on Carcinogens:

None.

Substance(s) listed on the IARC Monographs:

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - Group 3.

Substance(s) listed as OSHA Carcinogen(s):

None.

Substance(s) listed as NIOSH Carcinogen(s):

None.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve - CAS: 111-76-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 1490 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 1000 mg/l - Duration h: 24

c) Bacteria toxicity:

Endpoint: EC50 - Species: Active mud > 700 mg/l - Duration h: 16

4-hydroxy-2,2,6,6-tetramethylpiperidinoxyl - CAS: 2226-96-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 545 mg/l - Notes: (OECD - Guide Line 203)

Endpoint: EC50 - Species: Daphnia = 54 mg/l

Endpoint: EC50 - Species: Algae = 1038 mg/l - Duration h: 72

Endpoint: CE10 - Species: Algae = 125 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia 1.5 ml/l - Notes: (OECD - Guide line 203 - part 2)

f) Effects in sewage plants:

Endpoint: CE10 - Species: Active mud = 430 mg/l

3-Iodo-2-propynylbutylcarbamate - CAS: 55406-53-6

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 0.16 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 0.022 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish = 0.067 mg/l - Duration h: 96

Endpoint: NOEC - Species: Algae 0.0046 mg/l - Duration h: 72

Persistence and degradability

N.A.

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

None

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION



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UN number
Not classified as dangerous within the meaning of transport regulations.

UN proper shipping name
N.A.

Transport hazard class(es)
N.A.

Packing group
N.A.

Environmental hazards

ADR-Environmental pollutant:	No
IMDG-Marine pollutant:	No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)
No

Special precautions
N.A.

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act
TSCA inventory: all the components are listed on the TSCA inventory.
TSCA listed substances:
2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve is listed in TSCA Section 4, Section 12b.

SARA - Superfund Amendments and Reauthorization Act
Section 302 – Extremely Hazardous Substances: no substances listed.
Section 304 – Hazardous substances: no substances listed.
Section 313 – Toxic chemical list: 3-Iodo-2-propynylbutylcarbamate.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
No substances listed.

CAA - Clean Air Act
CAA listed substances:
2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve is listed in CAA Section 111, Section 112(b) - HAP.

CWA - Clean Water Act
CWA listed substances:
3-Iodo-2-propynylbutylcarbamate is listed in CWA Section 304.

USA - State specific regulations

California Proposition 65
Substance(s) listed under California Proposition 65:
None.

Massachusetts Right to know
Substance(s) listed under Massachusetts Right to know:
2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve.

New Jersey Right to know
Substance(s) listed under New Jersey Right to know:
2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve
3-Iodo-2-propynylbutylcarbamate.

Pennsylvania Right to know
Substance(s) listed under Pennsylvania Right to know:
2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve.

16. OTHER INFORMATION

Text of phrases referred to under heading 3:
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.
H335 May cause respiratory irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.

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Sections modified from the previous revision:

3. COMPOSITION/INFORMATION ON INGREDIENTS
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Disclaimer:



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The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average