



Glean® herbicide

Version	Revision Date:	SDS Number:	Date of last issue: -
		50000939	Date of first issue: 03.01.2018

Components:

Chlorsulfuron Technical:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OPPTS 870.2600
Result	:	Not a skin sensitizer.

Chronic toxicity

Germ cell mutagenicity

Not classified based on available information.

Components:

Chlorsulfuron Technical:

Genotoxicity in vitro	:	Test system: Chinese hamster ovary cells Method: Regulation (EC) No. 440/2008, Annex, B.17 Result: negative
Genotoxicity in vivo	:	Test Type: dominant lethal test Method: Regulation (EC) No. 440/2008, Annex, B.22 Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Chlorsulfuron Technical:

Carcinogenicity - Assessment	:	The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions., A slight increased incidence in tumors was observed in one species, but not in other species, Not classifiable as a human carcinogen.
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Reproductive toxicity

Not classified based on available information.

Components:

Chlorsulfuron Technical:

Reproductive toxicity - Assessment	:	No toxicity to reproduction Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.
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STOT - single exposure

Not classified based on available information.

SAFETY DATA SHEET



Glean® herbicide

Version 1.2 Revision Date: 02.08.2023 SDS Number: 50000939 Date of last issue: -
Date of first issue: 03.01.2018

Components:

Chlorsulfuron Technical:

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

STOT - repeated exposure

Not classified based on available information.

Product:

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

Repeated dose toxicity

Components:

Chlorsulfuron Technical:

Species : Rat
NOAEL : 161 - 217 mg/kg
Application Route : Oral
Exposure time : 90 day
Method : Regulation (EC) No. 440/2008, Annex, B.26
Remarks : No toxicologically significant effects were found.

Aspiration toxicity

Not classified based on available information.

Section 12: Ecological information

Ecotoxicity

Product:

Toxicity to algae/aquatic plants : EC50 (*Scenedesmus capricornutum* (fresh water algae)): 0.00024 mg/l
Exposure time: 72 h

Components:

Chlorsulfuron Technical:

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 250 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 370 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EbC50 (*Pseudokirchneriella subcapitata* (green algae)): 0.068 mg/l
Exposure time: 72 h

EC50 (*Lemna gibba* (duckweed)): 0.00042 mg/l

SAFETY DATA SHEET



Glean® herbicide

Version 1.2 Revision Date: 02.08.2023 SDS Number: 50000939 Date of last issue: -
Date of first issue: 03.01.2018

Exposure time: 14 d
Method: OPPTS 850.4400

EbC50 (Pseudokirchneriella subcapitata (green algae)): 0.05 mg/l
Exposure time: 120 h

ErC50 (Lemna gibba (gibbous duckweed)): 0.00069 mg/l
Exposure time: 14 d

M-Factor (Acute aquatic toxicity) : 10

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 32 mg/l
Exposure time: 77 d
Method: US EPA Test Guideline OPP 72-4

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 12 mg/l
Exposure time: 28 d
Method: OECD Test Guideline 202

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to microorganisms : EC50 (Anabaena flos-aquae (cyanobacterium)): 0.61 mg/l

Toxicity to terrestrial organisms : LD50 (Apis mellifera (bees)): > 0.1 mg/kg
End point: Acute contact toxicity
Method: OECD Test Guideline 214

LD50 (Apis mellifera (bees)): > 0.013 mg/kg
End point: Acute oral toxicity
Method: OECD Test Guideline 213

LC50 (Anas platyrhynchos (Mallard duck)): > 5,000 mg/kg
Exposure time: 8 d
Method: US EPA Test Guideline OPP 71-1
Remarks: Dietary

sucrose:

Toxicity to fish : Remarks: No data available

Persistence and degradability

Components:

Chlorsulfuron Technical:

Biodegradability : Result: Not readily biodegradable.

sucrose:

Biodegradability : Remarks: No data available

SAFETY DATA SHEET



Glean® herbicide

Version 1.2 Revision Date: 02.08.2023 SDS Number: 50000939 Date of last issue: -
Date of first issue: 03.01.2018

Bioaccumulative potential

Components:

Chlorsulfuron Technical:

Bioaccumulation : Remarks: See section 9 for octanol-water partition coefficient.
Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 0.33 (25 °C)
pH: 5.0

log Pow: -0.99 (25 °C)
pH: 7

log Pow: -1.41 (25 °C)
pH: 9

Mobility in soil

Components:

Chlorsulfuron Technical:

Distribution among environmental compartments : Remarks: Moderately mobile in soil at low pH.
Very mobile at high pH.

Other adverse effects

No data available

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.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
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, N.O.S.
(Chlorsulfuron)

SAFETY DATA SHEET



Glean® herbicide

Version 1.2 Revision Date: 02.08.2023 SDS Number: 50000939 Date of last issue: -
Date of first issue: 03.01.2018

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.
(Chlorsulfuron)

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.
(Chlorsulfuron)

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.

National Regulations

NZS 5433

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(Chlorsulfuron)

Class : 9
Packing group : III
Labels : 9
Hazchem Code : 2Z

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

Safety, health and environmental regulations/legislation specific for the substance or mixture

HSNO Approval Number

HSR000231

SAFETY DATA SHEET



Glean® herbicide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.2	02.08.2023	50000939	Date of first issue: 03.01.2018

ACVM Number: P003096

The components 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. 1-(2-CHLOROPHENYLSULFONYL)-3-(4-METHOXY-6-METHYL-1,3,5-TRIAZIN-2-YL)UREA D-Glucopyranose, 4-O-.beta.-D-galactopyranosyl-, monohydrate
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

Section 16: Other information

Revision Date : 02.08.2023

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

ACGIH / TWA : 8-hour, time-weighted average
NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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 Sys-

SAFETY DATA SHEET



Glean® herbicide

Version	Revision Date:	SDS Number:	Date of last issue: -
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tem; GLP - Good Laboratory Practice; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

Disclaimer

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