

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: *Glyfos® Premium*

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the mixture *Herbicide*

1.3 Details of the supplier of the safety data sheet

Supplier:

Cheminova Deutschland GmbH & Co. KG

FMC Agricultural Solutions

Stader Elbstraße 26

21683 Stade

Germany

Tel: +49 (0) 4141 9204 0

Fax: +49 (0) 4141 9204 210

datenblatt@fmc.com

www.fmcagro.de

Further information obtainable from:

Cheminova Deutschland GmbH & Co. KG

FMC Agricultural Solutions

Stader Elbstraße 26

21683 Stade

Germany

Tel: +49 (0) 4141 9204 0

Fax: +49 (0) 4141 9204 210

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www.fmcagro.de

1.4 Emergency telephone number:

Cases of intoxication:

+49 (0) 551 19240 (GIZ-Nord Poisons Centre, Göttingen, Germany, 24 h) "Member of EPECS Network"

Hazardous substance/dangerous goods incidents (e.g. spills, leaks, fire, exposure or accident):

0800 181 7059 (CHEMTREC Germany, toll-free, 24 h)

+49 (0) 69 643 508 409 (CHEMTREC from outside Germany, 24 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Additional information:

SP 1: Do not contaminate water with the product or its container (Do not clean application equipment near surface water./Avoid contamination via drains from farmyards and roads).

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

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2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description:

Water soluble concentrate (SL) of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 38641-94-0 EINECS: 254-056-8	glyphosate isopropylamine salt ⚠ Aquatic Chronic 2, H411	50-56%
CAS: 143-22-6 EINECS: 205-592-6 Index number: 603-183-00-0	2-[2-(2-butoxyethoxy)ethoxy]ethanol ⚠ Eye Dam. 1, H318	< 2%
CAS: 71060-57-6 EC number: 615-247-5	Alcohols, C8-C10, ethoxylated ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	< 2%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

If contact lenses are worn, remove after 5 minutes of rinsing, then continue rinsing.

After swallowing:

Rinse mouth with plenty of water; do not swallow.

Do not induce vomiting; call for medical help immediately and show this material safety data sheet.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment (decontamination, vital functions), no specific antidote known.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Foam

Use carbon dioxide (CO₂) or dry chemical powder for small fires.

For safety reasons unsuitable extinguishing agents: Water with full jet

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5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Phosphor oxides (e.g. P₂O₅)

Nitrogen oxides (NOx)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information

Do not inhale explosion gases or combustion gases.

Cool endangered receptacles with water spray.

Use water spray to knock down fire fumes if possible.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Avoid contact with spilled product or contaminated areas.

6.2 Environmental precautions:

Do not discharge into sewer, surface water or groundwater.

Inform respective authorities in case of seepage into water course or sewage system.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Disposal had to be accomplished in suitable receptacles.

If possible clean area with detergent and much water. Absorb wash liquid with absorbent and transfer to suitable containers for disposal.

Don't use steel containments for disposal (refer to section 7).

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Wear personal protection equipment.

Avoid contact with the eyes, the skin and clothing.

Wash hands before breaks and at the end of work.

Do not eat, drink or smoke in work areas.

Remove contaminated clothing and protective equipment before entering eating areas.

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Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities**Storage:****Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Keep containers tightly closed in a dry, cool and well-ventilated place.

The product or its spray solutions should be mixed, stored or applied using only stainless steel, aluminium, fiberglass, plastic or plastic-lined containers.

Information about storage in one common storage facility:

Do not store together with foodstuffs, beverages and feed.

Do not store together with alkalis (caustic solutions).

Do not store with strong oxidising agents.

Additionally the restriction for joint storage must be observed (according to TRGS 510).

Further information about storage conditions:

Protect from heat and direct sunlight.

Protect from frost.

Keep out of reach for children.

Recommended storage temperature: Store between 5 °C and 35 °C.**Storage class:** 10 (TRGS 510): Combustible liquids**7.3 Specific end use(s)** Use only in accordance with the instruction manual.**SECTION 8: Exposure controls/personal protection****Additional information about design of technical facilities:** No further data; see item 7.**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Be sure to clean skin thoroughly after work and before breaks.

Ensure good ventilation at the workplace.

The statements on personal protective equipment in the instructions for use apply when handling plant protection products.

Respiratory protection:

In case of insufficient ventilation/exhausting use:

Otherwise



Respiratory single serving mask DIN EN 149 with filter FFP2

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Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.



Protective gloves (EN 374, EN 388, EN 420)

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Choose chemical resistant gloves.

Recommend are gloves made of:

Nitrile, recommended thickness of the material: ≥ 0.11 mm

Penetration time of glove material

Penetration time 480 minutes (Permeation according to EN 374 Part 3: Level 6) e.g. for Dermatril®

If other glove materials or protective gloves of other manufacturers are used, than the exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles (EN 166)

Body protection:



Use suitable protective work clothing. Protective suit against pesticides (DIN 32781) is recommended when handling plant protection products.



Sturdy shoes, e.g. rubber boots (EN 20345)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:

Fluid

Colour:

Slightly yellow to brown

Odour:

Amine-like

Odour threshold:

Not determined.

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pH-value (10 g/l) at 25 °C:	5.05 (CIPAC MT 75)
Change in condition	
Melting point/freezing point:	< 0 °C
Initial boiling point and boiling range:	> 100 °C
Flash point:	> 70 °C (Closed cup)
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Not determined
Explosive properties:	Product does not present an explosion hazard if used and stored according to specifications.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Oxidising properties	No oxidising properties
Vapour pressure:	9.9 x 10 ³ Pa at 55°C
Density at 20 °C:	1.205 g/cm ³ (EEC A.3)
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with water:	Fully miscible.
Partition coefficient: n-octanol/water:	Glyphosate: log Pow: -3.2 (25 °C, pH 5-9); BCF: not applicable. EFSA Journal 2015;13(11):4302
Viscosity:	
Dynamic at 45 °C:	35 mPas (OECD 114)
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity Stable under normal conditions of use.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Reacts with alkali and metals.

Exothermic reactions with alkali (lyes).

Forms hydrogen in aqueous solution with metals.

Reacts with strong oxidising agents.

10.4 Conditions to avoid

Protect against heat and direct sunlight.

10.5 Incompatible materials:

Do not mix, store or apply this product or spray solutions of this product in galvanised or unlined steel (except stainless steel) containers or spray tanks. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture with air.

Bases

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Strong oxidants.

10.6 Hazardous decomposition products:

No hazardous decomposition products if stored and used according to specifications.
See Section 5 for information about hazardous decomposition products in case of fire.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

The toxicity data were carried out with a similar formulation.

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>5,000 mg/kg (rat) (OECD 402)
Inhalative	LC50/4h	>4.72 mg/L (rat) (OECD 403)

Remarks:

LC50/4 h, inhalativ: Measured on a similar product; technical maximum attainable concentration; no signs of toxicity at this concentration.

Primary irritant effect:

Skin corrosion/irritation Not irritating (OECD 404).

Serious eye damage/irritation There may be irritation and redness, without labelling (OECD 405).

Respiratory or skin sensitisation Not a skin sensitizer (OECD 406, Buehler-test).

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

LC50 (96 h)	>1,000 mg/L (<i>Oncorhynchus mykiss</i>) (OECD 203)
EC50 (48 h) (static)	>1,000 mg/L (<i>Daphnia magna</i>) (OECD 202)
ErC50 (72 h)	357.4 mg/L (<i>Pseudokirchneriella subcapitata</i>) (OECD 201)
NOEC (7 d)	3.19 mg/L (<i>Lemna minor</i>) (OECD 221)

12.2 Persistence and degradability

On the basis of the data for the active substance:

Not easily biodegradable

12.3 Bioaccumulative potential

Glyphosate: log Pow: -3.2 (25 °C, pH 5-9); BCF: not applicable. EFSA Journal 2015;13(11):4302

Non significant accumulation in organisms

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: If used as recommended no inadequate risks to the environment are expected.

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Additional ecological information:

General notes: Do not allow product to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation:

Do not reuse packing for other products.

Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, ADN, IMDG

Void

14.2 UN proper shipping name

ADR, ADN, IMDG

Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG

Class

Void

14.4 Packing group

ADR, IMDG

Void

14.5 Environmental hazards:

Marine pollutant:

No

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

EN

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SECTION 15: Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

National regulations:

Waterhazard class:

It must be excluded that plant protection products reach ground water, water course or sewage system. Therefore, they have to be stored like substances which are classified as Water Hazard Class 3. (Consequently, it is not necessary to classify plant protection products into Water Hazard Classes and to mark them in this case.)

Other regulations, limitations and prohibitive regulations

Avoid any unnecessary contact with the product.

Any misuse may cause health problems.

The product is not covered by Annex 2 of the German Chemikalienverbotsverordnung (ChemVerbotsV).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This material safety data sheet was created in accordance with the Commission Regulation (EU) 2015/830 amending Regulation (EC) No 1907/2006.

Relevant phrases

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Department issuing SDS: Regulatory Affairs

Contact:

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Abbreviations and acronyms:

EC50: Effective concentration, 50 percent

log Pow: n-octanol/water-partition coefficient

OECD: Organisation for Economic Co-operation and Development

BCF: Bioconcentration Factor

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Dangerous Goods Code

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substances)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - oral – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

*** Data compared to the previous version altered.**

EN