



EQUIP OD45

Version 8 / EU
102000011304

1/13
Revision Date: 18.11.2022
Print Date: 09.05.2023

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name EQUIP OD45
Product code (UVP) 06321801

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

Use Herbicide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer AG
Kaiser-Wilhelm-Allee 1
51373 Leverkusen
Germany

Telefax +49(0)2173-38-7394

Responsible Department Chemical Regulatory Affairs
+49(0)2173-38-3409 (during business hours only)
Email: BCS-SDS@bayer.com

1.4 Emergency telephone no.

Emergency telephone no. Global Incident Response Hotline (24h)
+1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Aspiration hazard: Category 1
H304 May be fatal if swallowed and enters airways.

Skin irritation: Category 2
H315 Causes skin irritation.

Carcinogenicity: Category 2
H351 Suspected of causing cancer.

Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and



EQUIP OD45

Version 8 / EU
102000011304

2/13

Revision Date: 18.11.2022
Print Date: 09.05.2023

packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Isoxadifen-ethyl
- Foramsulfuron
- Hydrocarbons, C10-C13, aromatics, <1% naphthalene



Signal word: Danger

Hazard statements

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effects.
EUH208	Contains Isoxadifen-ethyl. May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/ physician.
P331	Do NOT induce vomiting.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No additional hazards known beside those mentioned.

Foramsulfuron: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Isoxadifen-ethyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**EQUIP OD45**Version 8 / EU
102000011304

3/13

Revision Date: 18.11.2022
Print Date: 09.05.2023**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**Oil dispersion (OD)
Foramsulfuron + Isoxadifen-ethyl (22,5 + 22,5 g/l)**Hazardous components**

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Foramsulfuron	173159-57-4 605-666-1	Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	2,37
Isoxadifen-ethyl	163520-33-0 443-870-0 01-0000018707-62-0000	Acute Tox. 4, H302 Aquatic Chronic 1, H410 Skin Sens. 1, H317 Aquatic Acute 1, H400	2,34
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	922-153-0 01-2119451097-39-xxxx	Asp. Tox. 1, H304 Aquatic Chronic 2, H411	> 25
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	68953-96-8 273-234-6 01-2119964467-24-xxxx	Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	> 1 – < 3
Octan-1-ol	111-87-5 203-917-6 01-2119486978-10-XXXX	Eye Irrit. 2, H319 Aquatic Chronic 3, H412	> 1 – < 10

Further information

Foramsulfuron	173159-57-4	M-Factor: 1.000 (acute), 100 (chronic)
Isoxadifen-ethyl	163520-33-0	M-Factor: 1 (acute)

For the full text of the H-Statements mentioned in this Section, see Section 16.

Particle characteristics

This substance/ mixture does not contain nanoforms

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures****General advice**

Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.

Inhalation

Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.



EQUIP OD45

Version 8 / EU
102000011304

4/13

Revision Date: 18.11.2022
Print Date: 09.05.2023

Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Risk of product entering the lungs on vomiting after ingestion. Call a physician or poison control center immediately. Rinse mouth. To prevent aspiration of swallowed product, lay in stable position on one side.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	Symptoms and hazards refer to the solvent. Headache, Nausea, Dizziness, Somnolence Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Aspiration may cause pulmonary oedema and pneumonitis. Inhalation may provoke the following symptoms: Cough, Shortness of breath, Cyanosis, Fever
-----------------	--

4.3 Indication of any immediate medical attention and special treatment needed

Risks	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
Treatment	Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. In case of aspiration intubation and bronchial lavage should be considered. Monitor: kidney, liver and pancreas function. There is no specific antidote. Contraindication: derivatives of adrenaline.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet

5.2 Special hazards arising from the substance or mixture	In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Carbon dioxide (CO ₂), Sulphur oxides, Nitrogen oxides (NO _x)
--	--

5.3 Advice for firefighters

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
--	--

**EQUIP OD45**Version 8 / EU
102000011304

6/13

Revision Date: 18.11.2022
Print Date: 09.05.2023**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Foramsulfuron	173159-57-4	10 mg/m ³ (TWA)		OES BCS*
Isoxadifen-ethyl	163520-33-0	1 mg/m ³ (SK-SEN)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls**Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

Respiratory protection is not required under anticipated circumstances of exposure.
If product is handled while not enclosed, and if contact may occur:
Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent.
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.
Material Nitrile rubber
Rate of permeability > 480 min
Glove thickness > 0,4 mm
Protective index Class 6
Directive Protective gloves complying with EN 374.

Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection

Wear standard coveralls and Category 3 Type 6 suit.
If there is a risk of significant exposure, consider a higher protective type suit.
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

**EQUIP OD45**Version 8 / EU
102000011304

7/13

Revision Date: 18.11.2022
Print Date: 09.05.2023**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Form	Liquid
Colour	beige
Odour	aromatic
Odour Threshold	No data available
Melting point/range	No data available
Boiling Point	No data available
Flammability	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Flash point	121 °C
Auto-ignition temperature	290 °C
Self-accelarating decomposition temperature (SADT)	No data available
pH	5,0 - 7,0 (10 %) (23 °C) (deionized water)
Viscosity, dynamic	26 mPa.s (20 °C) Velocity gradient 20 /s 25 mPa.s (20 °C) Velocity gradient 100 /s 17 mPa.s (40 °C) Velocity gradient 20 /s 14 mPa.s (40 °C) Velocity gradient 100 /s
Viscosity, kinematic	27 mm ² /s (20 °C) Shear rate of 20/sec 26 mm ² /s (20 °C) Shear rate of 100/sec 18 mm ² /s (40 °C) Shear rate of 20/sec 14 mm ² /s (40 °C) Shear rate of 100/sec
Water solubility	dispersible
Partition coefficient: n-octanol/water	Foramsulfuron: log Pow: 0,60 Isoxadifen-ethyl: log Pow: 3,8
Surface tension	33 mN/m (25 °C) Determined in the undiluted form. 32 mN/m (20 °C)

**EQUIP OD45**Version 8 / EU
102000011304

8/13

Revision Date: 18.11.2022
Print Date: 09.05.2023

Determined as a 1% solution in distilled water.

Vapour pressure No data available**Density** ca. 0,96 g/cm³ (20 °C)**Relative density** No data available**Relative vapour density** No data available**Assessment nano particles** This substance/ mixture does not contain nanoforms**Particle size** No data available**9.2 Other information****Impact sensitivity** Not impact sensitive.**Explosivity** Not explosive
92/69/EEC, A.14 / OECD 113**Oxidizing properties** No oxidizing properties**Evaporation rate** No data available**Other physico-chemical properties** Further safety related physical-chemical data are not known.**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity** Stable under normal conditions.**10.2 Chemical stability** Stable under recommended storage conditions.**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.**10.4 Conditions to avoid** freezing
Extremes of temperature and direct sunlight.**10.5 Incompatible materials** Store only in the original container.**10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on hazard classes as defined in regulation (EC) No 1272/2008****Acute oral toxicity** LD50 (Rat) > 5.000 mg/kg
Test conducted with a similar formulation.



EQUIP OD45

Version 8 / EU
102000011304

9/13

Revision Date: 18.11.2022
Print Date: 09.05.2023

Acute inhalation toxicity	LC50 (Rat) > 5,25 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol. Test conducted with a similar formulation.
Acute dermal toxicity	LD50 (Rat) > 5.000 mg/kg Test conducted with a similar formulation.
Skin corrosion/irritation	Irritating to skin. (Rabbit) Test conducted with a similar formulation.
Serious eye damage/eye irritation	Slight irritant effect - does not require labelling. (Rabbit) Test conducted with a similar formulation.
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA) Test conducted with a similar formulation. Skin: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test Test conducted with a similar formulation.

Assessment STOT Specific target organ toxicity – single exposure

Foramsulfuron: Based on available data, the classification criteria are not met.
Isoxadifen-ethyl: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Foramsulfuron did not cause specific target organ toxicity in experimental animal studies.
Isoxadifen-ethyl did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Foramsulfuron was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
Isoxadifen-ethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Foramsulfuron: Suspected of causing cancer.
Isoxadifen-ethyl was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

Foramsulfuron did not cause reproductive toxicity in a two-generation study in rats.
Isoxadifen-ethyl did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Foramsulfuron did not cause developmental toxicity in rats and rabbits.
Isoxadifen-ethyl did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

Endocrine disrupting properties

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**EQUIP OD45**Version 8 / EU
102000011304

10/13

Revision Date: 18.11.2022
Print Date: 09.05.2023**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

Toxicity to fish LC50 (*Lepomis macrochirus* (Bluegill sunfish)) 7,8 mg/l
Exposure time: 96 h
Test conducted with a similar formulation.

Toxicity to aquatic invertebrates EC50 (*Daphnia magna* (Water flea)) 6,9 mg/l
Exposure time: 48 h
Test conducted with a similar formulation.

Toxicity to aquatic plants EC50 (*Raphidocelis subcapitata* (freshwater green alga)) > 5 mg/l
Growth rate; Exposure time: 96 h
Test conducted with a similar formulation.

||| EC50 (*Lemna gibba* (gibbous duckweed)) 0,00075 mg/l
Growth rate; Exposure time: 7 d
Test conducted with a similar formulation.

12.2 Persistence and degradability

Biodegradability Foramsulfuron:
Not rapidly biodegradable
Isoxadifen-ethyl:
Not rapidly biodegradable

Koc Foramsulfuron: Koc: 38 - 151
Isoxadifen-ethyl: Koc: 2512; log Koc: 3,4

12.3 Bioaccumulative potential

Bioaccumulation Foramsulfuron:
Does not bioaccumulate.
Isoxadifen-ethyl:
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Foramsulfuron: Mobile in soils
Isoxadifen-ethyl: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Foramsulfuron: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Isoxadifen-ethyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Endocrine disrupting properties

||| **Assessment** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



EQUIP OD45

Version 8 / EU
102000011304

11/13

Revision Date: 18.11.2022
Print Date: 09.05.2023

12.7 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Contaminated packaging Triple rinse containers.
Do not re-use empty containers.
Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for the unused product **02 01 08*** agrochemical waste containing hazardous substances

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOXADIFEN-ETHYL, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
Tunnel Code	-

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOXADIFEN-ETHYL, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.



EQUIP OD45

Version 8 / EU
102000011304

12/13

Revision Date: 18.11.2022
Print Date: 09.05.2023

(ISOXADIFEN-ETHYL, SOLVENT NAPHTHA (PETROLEUM)
HEAVY AROMATIC SOLUTION)

14.3 Transport hazard class(es) 9
14.4 Packaging Group III
14.5 Environm. Hazardous Mark YES

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

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

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

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

Further information

WHO-classification: U (Unlikely to present acute hazard in normal use)

15.2 Chemical safety assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE Acute toxicity estimate
CAS-Nr. Chemical Abstracts Service number
Conc. Concentration
EC-No. European community number
ECx Effective concentration to x %

**EQUIP OD45**Version 8 / EU
10200001130413/13
Revision Date: 18.11.2022
Print Date: 09.05.2023

EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2020/878 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 2020/878. Checked and revised for editorial purposes due to adjustments according to the current Annex II of the REACH regulation.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.