

SAFETY DATA SHEET

OPTICA

This safety data sheet complies with the requirements of:
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS #: 10231-A
Revision date: 2019-12-05
Format: EU
Version 1.02

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

Product Code(s) 10231-A

Product Name OPTICA

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

Recommended Use: Herbicide, Restricted to professional users

Restrictions on use Use as recommended by the label.

1.3. Details of the supplier of the safety data sheet

Supplier FMC Agro Limited
Rectors Lane
Pentre
Flintshire
CH5 2DH
United Kingdom
Tel: + 44 1244 537370
E-mail: fmc.agro.uk@fmc.com

For further information, please contact:

Contact point E-Mail: SDS-Info@fmc.com
Phone: +1 215-299-6000 (General Information)

1.4. Emergency telephone number

Emergency telephone

For leak, fire, spill, or accident emergencies, call:
1 800 / 424-9300 (CHEMTREC - U.S.A. & Canada)
1 703 / 527 3887 (CHEMTREC - All Other Countries - Collect)

Medical emergencies:

Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Bulgaria: +359 2 9154 409
Cyprus: 1401
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 82 12 12 12
France: +33 (0) 1 45 42 59 59
Finland: +358 9 471 977
Greece: 30 210 77 93 777
Hungary: +36 80 20 11 99
Ireland (Republic): +352 1 809 2166
Italy: +39 02 6610 1029
Lithuania: +370 523 62052, +370 687 53378

Luxembourg: +352 8002 5500
 Netherlands: +31 30 274 88 88
 Norway: +47 22 591300
 Poland: +48 22 619 66 54, +48 22 619 08 97
 Portugal: 800 250 250 (in Portugal only), +351 21 330 3284
 Romania: +40 21318 3606
 Slovakia: +421 2 54 77 4 166
 Slovenia: +386 41 650 500
 Spain: +34 91 562 04 20
 Sweden: +46 08-331231112
 Switzerland: 145
 United Kingdom: 0870 600 6266 (in the UK only)
 U.S.A. & Canada: +1 800 / 331-3148
 All other countries: +1 651 / 632-6793 (Collect)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture *Regulation (EC) No 1272/2008*

Acute toxicity - Oral	Category 4 (H302)
Skin corrosion/irritation	Category 2 (H315)
Serious eye damage/eye irritation	Category 1 (H318)
Acute aquatic toxicity	Category 1 (H400)
Chronic aquatic toxicity	Category 1 (H410)

2.2. Label elements

Hazard pictograms



Signal Word

Danger

Hazard Statements

H302 - Harmful if swallowed
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H410 - Very toxic to aquatic life with long lasting effects

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

Precautionary Statements

P264 - Wash face, hands and any exposed skin thoroughly after handling
 P273 - Avoid release to the environment
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P501 - Dispose of contents/ container to an approved waste disposal plant in accordance with local, regional, and national regulations.

2.3. Other hazards

May be harmful if swallowed. Causes skin irritation. Causes serious eye damage.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This product is not identified as a PBT/vPvB substance.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

The product is a mixture, not a substance.

3.2 Mixtures

Chemical name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
(R)-2-(4-CHLORO-2-METHYLPHENOXY)PROPIONIC ACID, POTASSIUM SALT	240-539-0	66423-05-0	56.5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411	No data available
Tetrasodium EDTA	200-449-4	60-00-4	0.2	Acute Tox. 4 (Inhalation), (H332) Eye Irrit. 2, (H319) STOT RE 2, (H373)	No data available

Additional Information

For the full text of the H- and EUH- phrases mentioned in this Section, see Section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice	Call a poison control center or a doctor if you feel unwell.
Eye Contact	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Transfer to hospital for specialist examination.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation occurs: Get medical advice/ attention.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	Rinse mouth. Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Skin contact may cause irritation and allergic reactions. Causes serious eye damage.
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4.3. Indication of any immediate medical attention and special treatment needed

Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically.
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Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Dry chemical, CO₂, water spray or regular foam.

Unsuitable extinguishing media

Avoid heavy hose streams.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours.

Hazardous Combustion Products

Chlorine, Carbon monoxide, Carbon dioxide (CO₂), Hydrogen chloride.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear. Wear protective clothing to prevent contact with skin and eyes.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions

Ventilate the area. In case of spill, avoid contact. Isolate area and keep out animals and unprotected persons. Keep people away from and upwind of spill/leak. Stop leak if you can do it without risk.

For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Avoid penetration into waterways, sewers, soil or groundwater.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Contain spills with earth or sand or inert absorbent.

Methods for cleaning up

Pick up and transfer to properly labelled containers. Dispose of in accordance with all applicable national environmental laws and regulations. Dispose of waste as indicated in Section 13.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use according to package label instructions. Refer to Section 8.

Hygiene measures

Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

Specific Use(s)

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

(R)-2-(4-CHLORO-2-METHYLPHENOXY)PROPIONIC ACID, POTASSIUM SALT (66423-05-0)

United Kingdom: WEL TWA = 10 mg/m³ 8 h

United Kingdom: WEL STEL = 20 mg/m³ 15 min

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection Safety glasses with side-shields. Maintain eye wash fountain and quick-drench facilities in work area.

Hand Protection Protective gloves, Nitrile rubber. PVC gloves.

Skin and Body Protection Impervious clothing.

Respiratory Protection The product does not automatically present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers should put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Environmental exposure controls Avoid release to the environment. Refer to special instructions/Safety data sheets. Refer to specific Member State legislation for requirements under Community environmental legislation.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Liquid
Odour	Phenolic
Colour	Brown
Odour threshold	No information available
pH	9.0 (100%); 6.8(1%)
Melting point/freezing point	No information available
Boiling point/boiling range	> 100 °C
Flash point	> 100 °C
Evaporation Rate	No information available
Flammability (solid, gas)	
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit	No information available
Vapour pressure	No information available
Vapour density	No information available
Specific gravity	1.254
Water solubility	Miscible with water
Solubility in other solvents	No information available
Partition coefficient	-0.19 MCPP-p
Autoignition temperature	>600 °C
Decomposition temperature	No information available
Viscosity, kinematic	No information available

Viscosity, dynamic	No information available
Explosive properties	Not explosive
Oxidising properties	Non-oxidizing (by EC criteria)

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk density	No information available
K _{st}	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended storage conditions

10.2. Chemical stability

Stable under recommended storage conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions**Hazardous polymerisation**

Hazardous polymerization does not occur.

Hazardous reactions

None under normal processing. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

Strong acids, oxidising agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity****Product Information**

LD50 Oral	500-2000 mg/kg (rat)
LD50 Dermal	> 4000 mg/kg (rat)
Inhalation LC50	> 5.4 mg/l (4-hr) (rat)

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.

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

Ecotoxicity Very toxic to aquatic life with long lasting effects

The ecotoxicity of the product is measured as:

LC50 96h fish > 100 mg/l *Oncorhynchus mykiss*
EC50 48h crustacea > 100 mg/l *Daphnia magna*
EC50 72h algae 16.2 mg/l *Pseudokircneriella subcapitata* ; (MCPp)
Additional ecotoxicological information 14d NOErC (*Myriophyllum spicatum*) 0.00191 mg/L
(total shoot length, fresh weight)
14 d ErC50 (*Myriophyllum spicatum*) 0.0561 mg/L (total shoot length)
14d ErC10 (*Myriophyllum spicatum*) <0.01 (total shoot length, fresh weight)
14d NOErC (*Myriophyllum spicatum*) 0.00191 mg/L (total shoot length, fresh weight)
14 d ErC50 (*Myriophyllum spicatum*) 0.0561 mg/L (total shoot length)
14d ErC10 (*Myriophyllum spicatum*) <0.01 (total shoot length, fresh weight)

12.2. Persistence and degradability

Readily biodegradable.

12.3. Bioaccumulative potential

The substance has a low potential to bioaccumulate in the environment.

12.4. Mobility in soil

Mobility in soil

Mobile in soil.

Mobility

Koc = 135 - 167 (mecoprop-P).

12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated Packaging	Containers must be disposed of in accordance with local regulations. Refer to the product label for container disposal instructions.
OTHER INFORMATION	NOTE : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (mecoprop-p)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Marine Pollutant	Yes
Environmental Hazard	Yes
14.6 Special Provisions	Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not release to the environment
	Special provisions (IMDG) : 274, 335, 969
	Limited quantities (IMDG) : 5 L
	Excepted quantities (IMDG) : E1
	Packing instructions (IMDG) : P001, LP01
	Special packing provisions (IMDG) : PP1
	IBC packing instructions (IMDG) : IBC03
	Tank instructions (IMDG) : T4
	Tank special provisions (IMDG) : TP2, TP29
	EmS-No. (Fire) : F-A
	EmS-No. (Spillage) : S-F
	Stowage category (IMDG) : A
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	The product is not transported in bulk by ship.

RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (mecoprop-p)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not release to the environment

ADR/RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (mecoprop-p)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment.
	Classification code (ADR) : M6
	Special provisions (ADR) : 274, 335, 375, 601
	Limited quantities (ADR) : 5l

Excepted quantities (ADR) : E1
 Packing instructions (ADR) : P001, IBC03, LP01, R001
 Special packing provisions (ADR) : PP1
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR): T4
 Portable tank and bulk container special provisions (ADR): TP1, TP29
 Tank code (ADR) : LGBV
 Vehicle for tank carriage : AT
 Transport category (ADR) : 3
 Special provisions for carriage - Packages (ADR): V12
 Special provisions for carriage - Loading, unloading and handling (ADR): CV13
 Hazard identification number (Kemler No.) : 90

ICAO/IATA

14.1 UN/ID no UN3082
14.2 Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s (mecoprop-p)
14.3 Hazard class 9
14.4 Packing Group III
14.5 Environmental Hazard Yes
14.6 Special Provisions Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not release to the environment

PCA Excepted quantities (IATA) : E1
 PCA Limited quantities (IATA) : Y964
 PCA limited quantity max net quantity (IATA) : 30kgG
 PCA packing instructions (IATA) : 964
 PCA max net quantity (IATA) : 450L
 CAO packing instructions (IATA) : 964
 CAO max net quantity (IATA) : 450L
 Special provisions (IATA) : A97, A158, A197
 ERG code (IATA) : 9L

Section 15: REGULATORY INFORMATION

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

National regulations Young people under the age of 18 are not allowed to work with the substance.
 The employer shall assess any risks to the safety or health and any possible effect on the pregnancies or breastfeeding of workers and decide what measures should be taken (Dir. 92/85/EEC).

Germany**WGK Classification**

Water hazard class (WGK) 3, severe hazard to water (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

European Union**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not Applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not Applicable

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Tetrasodium EDTA 60-00-4	X	X	X	X	X	X	X	X

15.2. Chemical safety assessment

A Chemical Safety Assessment has not yet been completed for this substance

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure
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
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Legend

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS: CAS (Chemical Abstracts Service)
Ceiling: Maximum limit value:
DNEL: Derived No Effect Level (DNEL)
EINECS: EINECS (European Inventory of Existing Chemical Substances)
GHS: Globally Harmonised System (GHS)
IATA: International Air Transport Association (IATA)
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods (IMDG)
LC50: LC50 (lethal concentration)
LD50: LD50 (lethal dose)
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail
STEL: Short term exposure limit
SVHC: SVHC: Substances of Very High Concern for Authorisation:

TWA: time weighted average
vPvB: very Persistent and very Bioaccumulative

Revision date: 2019-12-05

Reason for revision: SDS sections updated.

Disclaimer

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.

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Prepared By

FMC Corporation

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End of Safety Data Sheet