

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: 2019-05-09
Format: EU
Version 1.01

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

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 Tel: +44(0) 1244 537370
Email: fmc.agro.uk@fmc.com

1.4. Emergency telephone number

Emergency telephone Tel: +44(0) 1244 537370 (Office hours only)

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)

2.2. Label elements

Hazard pictograms



Signal Word
 Danger

Hazard Statements

H302 - Harmful if swallowed
 H315 - Causes skin irritation
 H318 - Causes serious eye damage

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

Precautionary Statements

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
 P330 - Rinse mouth
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P332 + P313 - If skin irritation occurs: Get medical advice/attention
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

2.3. Other hazards

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	61.4	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411	No data available
Tetrasodium EDTA	200-449-4	60-00-4	<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.

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.

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 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	8.5 - 9.5
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	1.2 - 1.3
Water solubility	Miscible with water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	>600 °C
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	48.3 mPa s
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 > 2000 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 The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

LC50 96h fish = > 100 mg/L Oncorhynchus mykiss ; (MCPPp)
EC50 48h crustacea = > 91 mg/L (MCPPp)
EC50 72h algae = 1.6 mg/L Lemna minor ; (MCPPp)
EC50 72h algae = 16.2 mg/L Pseudokircneriella subcapitata ; (MCPPp)
ErC50 (algae) = 1.6 mg/L Lemna Gibba; (14 days)
NOEC (chronic) = 19.2 mg/L Pimphales promelas
NOEC chronic fish = > 50 mg/L Oncorhynchus mykiss ; (MCPPp)
NOEC chronic crustacea = 22.2 mg/L Daphnia magna ; (MCPPp)

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Tetrasodium EDTA	72 h EC50: = 1.01 mg/L (Desmodesmus subspicatus)	96 h LC50: 34 - 62 mg/L (Lepomis macrochirus) static 96 h LC50: 44.2	48 h EC50: = 113 mg/L (Daphnia magna) Static

		- 76.5 mg/L (Pimephales promelas) static	
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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

NOTE

NOT CLASSIFIED AS DANGEROUS IN THE MEANING OF TRANSPORT REGULATIONS.

IMDG/IMO

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Marine Pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available

RID

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated

14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR/RID

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ICAO/IATA

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

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/ELINC S (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
 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: 2019-05-09

Reason for revision: SDS sections updated.

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

Prepared By

FMC Corporation

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End of Safety Data Sheet