PRODUCT SAFETY DATA SHEET

1. Identification of the Product and the Company

Product Name:

OPTICA

A herbicide for use in agriculture and horticulture

Contact Points:

In all cases of emergency and for further advice, contact Headland Agrochemicals Ltd Rectors Lane Pentre Deeside Flintshire CH5 2DH

Tel: +44(0) 1244 537370 Fax: +44(0) 1244 532097 E-Mail: enquiry@headlandgroup.com

2. Hazards:

Harmful if swallowed. Irritating to skin. Risk of serious damage to eyes. Toxic to aquatic organisms. EU Classification Xn (Harmful), N (Dangerous for the Environment).

3. *†* Composition:

Ingredient	CAS No	Conc'n	Class'n	Risk Phrases
CMPP-P	16484-77-8	48.2% w/w	Xn,N	R22,41,51/53
Potassium	1310-58-3	12-17% w/w	С	R22,35
hydroxide				

4. *†* First Aid Measures:

Eyes:	Irrigate gently with clean water for at least 15 minutes. Send to hospital without delay.
Skin:	Remove contaminated clothing. Wash thoroughly with soap and water.
	Seek medical attention if any irritation or redness persists.
Ingestion:	If conscious, wash mouth out and give half a litre of water to
	drink. Do not induce vomiting.
	Keep patient at rest and obtain medical attention
Inhalation:	Remove from exposure, provide maximum ventilation and seek
	medical advice if symptoms persist
Guide to	
Doctors:	Treatment should be symptomatic and supportive.

5. *†* Fire Fighting Measures

Optica will not burn. If involved in a fire, decomposition fumes and vapours will be toxic and include oxides of carbon, chlorine and hydrochloric acid. Fire fighters should wear breathing apparatus.

Use dry chemical, foam, water spray, carbon dioxide, sand or earth. Avoid high-pressure water jets. Prevent entry of the product or contaminated water into watercourses ditches or drains by bunding the area with sand or earth if possible.

6. Accidental Release (Spillage)

Wear suitable protective clothing (see Section 8). Remove contaminated clothing immediately. Do not eat drink or smoke. Keep bystanders away. Turn containers leak-side up to prevent liquid from escaping. Absorb onto a suitable absorbent (dry sand or earth). Transfer to a labelled container for later removal to a safe place for disposal. Flush the area with plenty of water when all the spillage has been removed. Prevent the spillage from entering watercourses sewers or drains. Inform the Environment Agency if contamination of waterways, sewers or drains is threatened or occurs.

7. Storage and Handling

Keep in original container, tightly closed.

Keep cool and dry in a suitable agricultural chemical store under lock and key. The store should have an impermeable floor to prevent escape of liquids. Keep away from food, drink and animal feedingstuffs and out of reach of children.

Avoid direct contact with skin, eyes or clothing. Avoid breathing vapours; ensure there is sufficient ventilation of the area.

8. Exposure Control/Personal Protection

Wear coveralls, suitable protective gloves and face-shield to BS2092 when handling the concentrated product or contaminated surfaces and dealing with spillages. Wear suitable respiratory equipment in cases of insufficient ventilation. Avoid breathing the spray mist when using. Decontaminate all personal protective equipment after use.

9. † Physical and Chemical Properties

J	
Appearance:	a clear light brown liquid
Odour:	characteristic amine-like odour
Boiling point/range:	>100°C
Flashpoint:	>100°C
Autoignition temp.:	>400°C
Flammability:	Not flammable under normal handling
Explosive properties:	Not explosive
Oxidising properties:	Not an oxidiser
Vapour pressure:	2.3E+00 pA (mecoprop-p)
Solubility:	Completely miscible in water
Specific Gravity:	1.24 at 20°C
pH:	9
Viscosity:	ca 33 mPa.s (dynamic)
Partition coefficient	
(n-octanol/water)	LogPow = 0.02 at 20°C
	(mecoprop-p at pH 7)
	Log Pow = -0.18 at 20°C
	0

(mecoprop-p at pH 9)

10. *†* Stability and Reactivity

Stability: Very stable. Stores for at least 2 years in original containers in normal agricultural chemical storage conditions. Reactivity: Avoid contact with strong acids Decomposition: may generate carbon monoxide, chlorine, hydrochloric acid and carbon dioxide if heated to decomposition.

11. *†* Toxicological Information

Acute Toxicity:	
Acute oral LD50:	500 - 2000 mg/kg.bw (rat)
Acute dermal LD50:	> 2000 mg/kg.bw (rat)
Inhalation LC50:	>5.4 mg/l for 4 hours (rat)
Irritancy:	Irritating to skin
	Risk of serious damage to eyes
Sensitisation:	Not a sensitiser

12. † Environmental Protection

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. Do not contaminate surface waters or ditches with chemical or used container.

LC50 (96 hour):	Fish >100 mg/litre (mecoprop-p)
LC50 (48 hour):	Daphnia >91 mg/l (mecoprop-p)
EC50 (72 hour):	Algae 16.2 mg/l (mecoprop-p)
EC50 (72-hour)	<i>Lemna gibba</i> (Duckweed) 1.6 mg/l (mecoprop-p)

13. † Disposal of Unwanted Product and Used Containers

Consult the local authorities before disposing of unwanted chemical.. Dispose of containers as permitted by local authorities. Do not re-use containers for any purpose.

14. *†* **Transport Information**

Not dangerous as defined under ADR/RID
None
Not applicable
Not applicable
Not applicable
Not classified
Not classified

15. *†* **Regulatory Information**

Safety Phrases:	
S2	Keep out of reach of children
S26	In case of contact with eyes, rinse immediately with
	plenty of water and seek medical advice
S37/39	Wear suitable gloves and eye/face protection
S35	This material and its container must be disposed of in a
	safe way.
S57	Use appropriate containment to avoid environmental
	contamination

16. Other Information

The above information is intended to give health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the use of the product, for which purpose the product label and any appropriate technical usage literature available should be consulted and any relevant licences, consents or approvals complied with. The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate to the best of the issuer's available knowledge at the date of publication, and will be updated as and when appropriate. No liability will be accepted for any loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Optica is approved by the Chemicals Regulation Directorate for use as a herbicide.

Registration No. MAPP 14373

Headland is a registered trade mark of Headland Agrochemicals Ltd. Optica is a registered trade mark and product of Nufarm Ltd.

Revised:DecReplaces issue dated:NovSections updated since last issue:Mar

December 2010 November 2009 Marked † in margin