



## Bayer Environmental Science

**ASULOX**Version 1  
Revision Date 22.04.2003GB  
102000002227**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****Product information**

Trade name : ASULOX  
Product code : TADS 3681  
Product code : 04668A  
Specification : 19551  
Usage : herbicide  
Company : Bayer Environmental Science  
Durkan House  
214-224 High Street  
Waltham Cross  
Hertfordshire EN8 7DP  
United Kingdom

Telephone : +44(0)1992 784270  
Telefax : +44(0)1992 784276

Emergency telephone : 0800-220876 ( UK only )  
number : +44(0)1223-870312

**2. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical nature**

Soluble concentrate (SL), contains:  
Asulam 400 g/l

**Hazardous components**

Chemical Name	CAS-No.	Symbol(s):	R-phrase(s)	Concentration [%]
Asulam Sodium	2302-17-2	Xi, N	R43 R50	36.20

**3. HAZARDS IDENTIFICATION****Risk advice to man and the environment**

May cause sensitization by skin contact.  
Very toxic to aquatic organisms.

**4. FIRST AID MEASURES**

General advice : Remove contaminated, soaked clothing immediately and dispose of safely.

Inhalation : Move the patient to fresh air and keep at rest. If symptoms persist, call a physician.

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- Skin contact : Wash off immediately with soap and plenty of water. Seek medical aid if at all worried.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : Do not induce vomiting. Wash out mouth with water. Keep at rest. Obtain medical attention.

**Notes to physician**

- Symptoms : Local:, sensitizing, slight irritation
- Symptoms : Systemic:, To date no symptoms are known.
- Risks : This product, although being a carbamate, is NOT a cholinesterase inhibitor.
- Treatment : Local treatment:  
Initial treatment should be symptomatic and supportive.
- Treatment : Systemic treatment:  
In the event of a mouthful or more being ingested, the following measures should be considered:  
Gastric lavage with charcoal, if necessary further treatment.  
There is no antidote.

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : water spray  
alcohol-resistant foam  
dry chemical  
carbon dioxide (CO<sub>2</sub>)
- Extinguishing media which must not be used for safety reasons : Product itself is non-combustible; fire extinguishing measures to suit surroundings.
- Specific hazards during fire fighting : In case of fire the evolution of dangerous gases is possible.
- Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.  
Whenever possible, contain fire-fighting water by bunding area with sand or earth.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Avoid contact with spilled product or contaminated surfaces.



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When dealing with a spillage do not eat, drink or smoke.

- Environmental precautions : Keep people and animals away.  
Do not discharge into the drains/surface water/groundwater.  
If spillage enters drains leading to sewage works inform local water company immediately.  
If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).
- Methods for cleaning up : Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material).  
Transfer collected material to heavy duty plastic drums and keep safe for disposal.  
Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations
- Additional advice : Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.  
Check also for any local site procedures.

**7. HANDLING AND STORAGE**

**Handling**

- Advice on safe handling : No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.  
Provide good ventilation of working area (local exhaust ventilation if necessary).
- Advice on protection against fire and explosion : No special precautions required.

**Storage**

- Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place.  
Store in a place accessible by authorized persons only.
- Further information on storage conditions : Keep away from direct sunlight.  
Protect against frost.
- Storage temperature : 0 - 30 °C
- Suitable materials : Keep in original packaging, tightly closed.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Refer to COSHH assessment (Control of substances Hazardous to Health Regulations 1999 as amended). Engineering controls should be used in preference to personal protective equipment



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wherever practicable.

### Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Hand protection : Chemical resistant gloves  
PVC gloves  
nitrile gloves
- Eye protection : Chemical resistant goggles must be worn.
- Skin and body protection : Light protective clothing, PVC  
PVC boots
- Hygiene measures : When using, do not eat, drink or smoke.  
Remove soaked clothing immediately.  
Remove soiled clothing immediately.  
Clean hands and face at work intervals and after work.  
Work in an adequately ventilated room.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

- Form : liquid  
Colour : light brown

### Safety data

- pH : 7 - 8  
Note: Determined in the undiluted form
- Density : ca. 1.20 g/cm<sup>3</sup> at 20 °C
- Water solubility : Note: Miscible
- Partition coefficient (n-octanol/water) : log Pow: 0.1 - 0.8  
Note: The value mentioned relates to the active ingredient asulam-sodium.
- Other information : The product is not combustible.

## 10. STABILITY AND REACTIVITY

- Conditions to avoid : Note: Extremes of temperature and direct sunlight.
- Materials to avoid : None
- Hazardous reactions : No hazardous reactions when stored and handled according to prescribed instructions.  
Note: Stable under recommended storage conditions.

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102000002227**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	:	LD50 (rat) > 8,000 mg/kg
Acute inhalation toxicity	:	LC50 (rat) > 1.7 mg/l Exposure time: 4 h
Acute dermal toxicity	:	LD50 (rat) > 2,000 mg/kg
Skin irritation	:	rabbit Result: No skin irritation
Eye irritation	:	rabbit Result: No eye irritation
Sensitization	:	guinea pig Result: sensitizing Method: OECD 406, Buehler test

**12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish	:	LC50: > 175 mg/l Trout Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient asulam-sodium.
Toxicity to daphnia	:	EC50: 63.4 mg/l Water flea (Daphnia magna) Exposure time: 48 h Test substance: The value mentioned relates to the active ingredient asulam-sodium.
Toxicity to algae	:	EC50: 0.19 mg/l Selenastrum capricornutum Exposure time: 120 h Test substance: The value mentioned relates to the active ingredient asulam-sodium.
Toxicity to other organisms	:	LD50: > 4,000 mg/kg Mallard duck Test substance: The value mentioned relates to the active ingredient asulam-sodium.

**13. DISPOSAL CONSIDERATIONS**

Product	:	In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site
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operator and/or with the responsible authority  
Can be landfilled or incinerated, when in compliance with local regulations.  
Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste.  
Empty containers can be landfilled, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

**14. TRANSPORT INFORMATION**

<b>ADR/RID</b>	: UN-No	<b>3082</b>
	Class	9
	Packaging group	III
	Hazard no.	90
	Description of the goods	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( ASULAM-SODIUM SOLUTION )
<b>ADNR</b>	: UN-No	<b>3082</b>
	Class	9
	Item	11
	Letter	c
	Description of the goods	3082 Environmentally hazardous substance, liquid, n.o.s. ( ASULAM-SODIUM SOLUTION )
<b>IMDG</b>	: UN-No	<b>3082</b>
	Class	9
	Packaging group	III
	EmS	NONE
	Marine pollutant	P
	Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( ASULAM-SODIUM SOLUTION )
<b>IATA</b>	: UN-No	<b>3082</b>
	Class	9
	Packaging group	III
	Description of the goods	Environmentally hazardous substance, liquid, n.o.s. ( ASULAM-SODIUM SOLUTION )



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<b>CDG CPL</b> :	UN-No	<b>3082</b>
	Class	9
	Packaging group	III
	Hazard identification number	90
	Emergency action code	2X
	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ASULAM SODIUM)

**15. REGULATORY INFORMATION**

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3.

Hazardous components which must be listed on the label:

- Asulam Sodium

Exceptional labelling of special preparations : Restricted to professional users.  
To avoid risks to man and the environment, comply with the instructions for use.

Symbol(s):	: Xi N	Irritant Dangerous for the environment
R-phrase(s)	: R43 R50	May cause sensitization by skin contact. Very toxic to aquatic organisms.
S-phrase(s)	: S24 S35  S37 S57	Avoid contact with the skin. This material and its container must be disposed of in a safe way. Wear suitable gloves. Use appropriate containment to avoid environmental contamination.

**16. OTHER INFORMATION****Further information**

Text of R phrases mentioned in Section 2:

R43 May cause sensitization by skin contact.  
R50 Very toxic to aquatic organisms.

The above information is intended to give general health and safety guidance on the storage and



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transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, 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 at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

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