



# SAFETY DATA SHEET

## Oxyfluorfen 240 EC

Revision Date 25-May-2015

Version 1

Product No HRB00948-S

Publish Date 25-May-2015

H-0154-26783 / 26783

### Product identifier

## Oxyfluorfen 240 EC

Pure substance/mixture Mixture

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

Recommended Use Herbicide  
Uses advised against No information available

### Details of the supplier of the safety data sheet

Supplier Address ADAMA Agan Ltd  
P.O.B. 262  
ASHDOD Israel

### For further information, please contact

Email address SDS@ADAMA.COM

### Emergency Telephone

Emergency Telephone +972-03-6106666 Subscription no. 36789 (ADAMA Makhteshim Ltd.)

## Section 2: HAZARD IDENTIFICATION

### Classification of the substance or mixture

Aspiration toxicity	Category 1 - (H304)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Reproductive toxicity	Category 1B - (H360D)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Flammable liquids	Category 3 - (H226)

### Label Elements

#### Hazard pictograms

**Signal word**

Danger

**Hazard Statements**

H304 - May be fatal if swallowed and enters airways  
 H315 - Causes skin irritation  
 H318 - Causes serious eye damage  
 H335 - May cause respiratory irritation  
 H360D - May damage the unborn child  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H410 - Very toxic to aquatic life with long lasting effects  
 H226 - Flammable liquid and vapor

**Precautionary Statements**

P102 - Keep out of reach of children  
 P201 - Obtain special instructions before use  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P331 - Do NOT induce vomiting  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Hazards**

No information available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Mixture**

Chemical Name	Weight-%	CAS No
Oxyfluorfen	23-27	42874-03-3
2-Ethylhexan-1-ol	1-2	104-76-7
calcium dodecylbenzenesulphonate	1-4	26264-06-2
N-Methyl-2-pyrrolidone	6-10	872-50-4
Xylene	56-63	1330-20-7

### Section 4: FIRST AID MEASURES

**First aid measures****General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.

**Inhalation**

Remove to fresh air. Call a physician or poison control center immediately.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

**Eye contact**

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Keep eye wide open while rinsing.

**Ingestion** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Rinse mouth.

**Self-protection of the first aider** Use personal protective equipment as required.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** None known

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## Section 5: FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

No information available.

**Special hazards arising from the substance or mixture**

No specific hazard known.

**Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary

## Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**

Remove all sources of ignition. Evacuate personnel to safe areas. Use only with adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

**For emergency responders**

Use personal protection recommended in Section 8.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

**Reference to other sections**

**Other Information**

See also section 8,13

## Section 7: HANDLING AND STORAGE

**Precautions for safe handling****Advice on safe handling**

Use only with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

**General Hygiene Considerations**

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Wash contaminated clothing before reuse.

**Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place.

**Specific end use(s)****Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****National occupational exposure limits**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
2-Ethylhexan-1-ol 104-76-7					TWA: 10 ppm TWA: 54 mg/m <sup>3</sup> Ceiling / Peak: 10 ppm Ceiling / Peak: 54 mg/m <sup>3</sup> TWA: 20 ppm TWA: 110 mg/m <sup>3</sup>
N-Methyl-2-pyrrolidone 872-50-4		STEL: 75 ppm STEL: 309 mg/m <sup>3</sup> TWA: 10 ppm TWA: 40 mg/m <sup>3</sup> Skin	TWA: 40 mg/m <sup>3</sup> TWA: 10 ppm STEL: 80 mg/m <sup>3</sup> STEL: 20 ppm	S* STEL: 20 ppm STEL: 80 mg/m <sup>3</sup> TWA: 10 ppm TWA: 40 mg/m <sup>3</sup>	TWA: 20 ppm TWA: 82 mg/m <sup>3</sup> Ceiling / Peak: 40 ppm Ceiling / Peak: 164 mg/m <sup>3</sup> Skin
Xylene 1330-20-7	S* TWA 50 ppm TWA 221 mg/m <sup>3</sup> STEL 100 ppm STEL 442 mg/m <sup>3</sup>	STEL: 100 ppm STEL: 441 mg/m <sup>3</sup> TWA: 50 ppm TWA: 220 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 221 mg/m <sup>3</sup> TWA: 1000 mg/m <sup>3</sup> STEL: 100 ppm STEL: 442 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	S* STEL: 100 ppm STEL: 442 mg/m <sup>3</sup> TWA: 50 ppm TWA: 221 mg/m <sup>3</sup>	TWA: 100 ppm TWA: 440 mg/m <sup>3</sup> Ceiling / Peak: 200 ppm Ceiling / Peak: 880 mg/m <sup>3</sup> Skin
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
N-Methyl-2-pyrrolidone 872-50-4			Skin STEL: 80 mg/m <sup>3</sup> TWA: 40 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 40 mg/m <sup>3</sup> STEL: 20 ppm STEL: 80 mg/m <sup>3</sup> Skin	TWA: 5 ppm TWA: 20 mg/m <sup>3</sup> Skin
Xylene 1330-20-7	TWA: 50 ppm TWA: 221 mg/m <sup>3</sup> STEL: 100 ppm STEL: 442 mg/m <sup>3</sup> Skin	STEL: 150 ppm TWA: 100 ppm	Skin STEL: 442 mg/m <sup>3</sup> TWA: 210 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 220 mg/m <sup>3</sup> STEL: 100 ppm STEL: 440 mg/m <sup>3</sup> Skin	TWA: 25 ppm TWA: 109 mg/m <sup>3</sup> Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland

2-Ethylhexan-1-ol 104-76-7	Skin STEL 100 ppm STEL 540 mg/m <sup>3</sup> TWA: 50 ppm TWA: 270 mg/m <sup>3</sup>	STEL: 20 ppm STEL: 110 mg/m <sup>3</sup> TWA: 20 ppm TWA: 110 mg/m <sup>3</sup>	STEL: 320 mg/m <sup>3</sup> TWA: 160 mg/m <sup>3</sup>		
N-Methyl-2-pyrrolidone 872-50-4	Skin STEL 20 ppm STEL 80 mg/m <sup>3</sup> TWA: 10 ppm TWA: 40 mg/m <sup>3</sup>	Skin STEL: 40 ppm STEL: 160 mg/m <sup>3</sup> TWA: 20 ppm TWA: 80 mg/m <sup>3</sup>	STEL: 80 mg/m <sup>3</sup> TWA: 40 mg/m <sup>3</sup> Skin	TWA: 5 ppm TWA: 20 mg/m <sup>3</sup> Skin STEL: 20 ppm STEL: 80 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 101 mg/m <sup>3</sup> Skin
Xylene 1330-20-7	Skin STEL 100 ppm STEL 442 mg/m <sup>3</sup> TWA: 50 ppm TWA: 221 mg/m <sup>3</sup>	Skin STEL: 200 ppm STEL: 870 mg/m <sup>3</sup> TWA: 100 ppm TWA: 435 mg/m <sup>3</sup>	TWA: 100 mg/m <sup>3</sup> Skin	TWA: 25 ppm TWA: 108 mg/m <sup>3</sup> Skin STEL: 37.5 ppm STEL: 135 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 221 mg/m <sup>3</sup> STEL: 100 ppm STEL: 442 mg/m <sup>3</sup> Skin

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available.

### Exposure controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

### **Personal protective equipment**

#### **Eye/face protection**

Tight sealing safety goggles.

#### **Body Protection**

Gloves made of plastic or rubber, Antistatic footwear, Wear fire/flare resistant/retardant clothing, Suitable protective clothing, Apron.

**General Hygiene Considerations** When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Wash contaminated clothing before reuse.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
<b>Appearance</b>			
<b>Physical state</b>	: Liquid		
<b>Color</b>	: amber		
<b>Odor</b>	: Aromatic		
<b>Odor threshold</b>	: No data available		
<b>pH</b>	: 5 - 7	CIPAC MT 75.2	
<b>Melting point/freezing point °C</b>	: ----		Not Applicable
<b>Boiling point/boiling range °C</b>	: No data available		
<b>Flash point °C</b>	: 31.3		
<b>Evaporation rate</b>	: Not Applicable		
<b>Flammability (solid, gas)</b>	: Not applicable for liquids		
<b>Upper/lower flammability or explosive limits</b>	: No data available		
<b>Vapor pressure kPa</b>	: ----		Not Applicable
<b>Vapor density</b>	: No data available		
<b>Relative density</b>	: 0.94 - 1.04		20 °C
<b>Solubility(ies) mg/l</b>	: ----		Not Applicable
<b>Partition Coefficient (n-octanol/water) Log Pow</b>	:		See Section 12 for more information

**Autoignition temperature** °C : 450  
**Decomposition temperature** °C : No data available  
**Kinematic viscosity** mm<sup>2</sup>/s 40 °C : 2.3  
**Explosive properties** : May form explosive mixtures with air  
**Oxidizing properties** : Not oxidizing

**Other Information**

**Bulk density** g/ml : ---- Not Applicable  
**Surface tension** mN/m : 27.3 40 °C

## Section 10: STABILITY AND REACTIVITY

**Reactivity**

Not available.

**Chemical stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible Materials**

No information available

**Hazardous Decomposition Products**

None under normal use conditions.

## Section 11: TOXICOLOGY INFORMATION

**Information on toxicological effects****Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: 4599	Rat		
Dermal LD50 mg/kg	: > 4000	Rabbit		
Inhalation LC50 mg/l/4h	: > 5	Rat		
Skin corrosion/irritation	: Moderate skin irritation			
Serious eye damage/eye irritation	: Severely irritating to eyes			
Respiratory/skin sensitization	: Not a sensitizer			

**Chronic toxicity****Germ cell mutagenicity**

**Chemical Name**  
 Oxyfluorfen : Not classified

**Carcinogenicity**

**Chemical Name**  
 Oxyfluorfen : Not Carcinogenic

**Reproductive toxicity****Chemical Name**

Oxyfluorfen : Not toxic for the reproductive system

**STOT - single exposure****Chemical Name**

Oxyfluorfen : No data available

**STOT - repeated exposure****Chemical Name**

Oxyfluorfen : No data available

**Aspiration hazard****Chemical Name**

Oxyfluorfen : No data available

**Section 12: ECOLOGICAL INFORMATION****Toxicity****Aquatic toxicity**

<b>Acute toxicity</b>	<b>Values</b>	<b>Species</b>	<b>Method</b>	<b>Remarks</b>
Fish 96-hour LC50 mg/l	: 25	Rainbow trout		
Crustacea 48-hour EC50 mg/l	: 2.8	Daphnia magna		
Algae 72-hour EC50 mg/l	: 0.1	Algae		
Other plants EC50 mg/l	:			No data available

**Terrestrial Toxicity****Birds Oral LD50 mg/kg****Chemical Name**

Oxyfluorfen : &gt; 947 Bobwhite quail

**Bees Oral LD50 µg/bee****Chemical Name**

Oxyfluorfen : &gt; 100

**Persistence and degradability****Abiotic Degradation****Water DT50 days****Chemical Name**

Oxyfluorfen : ---- Stable

**Soil DT50 days****Chemical Name**

Oxyfluorfen : 68 - 533

**Biodegradation****Chemical Name**

Oxyfluorfen : No data available

**Bioaccumulative potential****Partition Coefficient****(n-octanol/water) Log Pow****Chemical Name**

Oxyfluorfen : 4.86 EEC A.6

**Bioconcentration factor (BCF)****Chemical Name**

Oxyfluorfen : No data available

**Mobility in soil**

<b>Adsorption/Desorption Chemical Name</b>	<b>Values</b>	<b>Method</b>	<b>Remarks</b>
Oxyfluorfen	: 7565		Koc

**Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB

**Other adverse effects**

No information available.

**Section 13: DISPOSAL CONSIDERATIONS**
**Waste treatment methods**

<b>Waste from residues/unused products</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Improper disposal or reuse of this container may be dangerous and illegal.
<b>Other Information</b>	Waste codes should be assigned by the user based on the application for which the product was used.

**Section 14: TRANSPORTATION INFORMATION**
**IMDG/IMO**

<b>UN/ID No</b>	1993
<b>Proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. ( Xylene )
<b>Hazard Class</b>	3
<b>Packing Group</b>	III
<b>Marine pollutant</b>	Yes
<b>Special precautions for user</b>	

**RID/ADR**

<b>UN/ID No</b>	1993
<b>Proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. ( Xylene )
<b>Hazard Class</b>	3
<b>Packing Group</b>	III
<b>Environmental hazard</b>	Yes
<b>Special precautions for user</b>	

**ICAO/IATA**

<b>UN/ID No</b>	1993
<b>Proper shipping name</b>	FLAMMABLE LIQUID, N.O.S. ( Xylene )
<b>Hazard Class</b>	3
<b>Packing Group</b>	III
<b>Environmental hazard</b>	Yes
<b>Special precautions for user</b>	
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not Applicable





## Section 15: REGULATORY INFORMATION

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

## Section 16: OTHER INFORMATION

### Revision Note

\*\*\* - Change from previous version.

### Disclaimer

The information provided in this Material 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.

End of Safety Data Sheet