



**LAUDIS SC 630**

Version 2 / ZA  
102000017388

1/11  
Revision Date: 13.07.2017  
Print Date: 13.07.2017

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

**Trade name** LAUDIS SC 630  
**Product code (UVP)** 79112912

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

**Use** Herbicide  
**Restrictions on use** See product label for restrictions.

**1.3 Details of the supplier of the safety data sheet**

**Supplier** Bayer (Pty) Ltd.  
27 Wrench Road, P.O. Box 143  
1600 Isando  
South Africa  
**Telephone** +27 (011) 921 5911  
**Telefax** +27 (011) 921 5766  
**Responsible Department** QHSE - Nigel, South Africa  
+27 (011) 365 8675 (during business hours only)

**1.4 Emergency telephone no.**

**Emergency telephone no.** +27 (0861) 555 777 (Western Cape Poisons Helpline)  
**Global Incident Response Hotline (24h)** +1 (760) 476 3964 (Company 3E for Bayer AG, Crop Science Division)

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Acute toxicity: Category 4  
H302 Harmful if swallowed.  
Reproductive toxicity: Category 2  
H361d Suspected of damaging the unborn child.  
Specific target organ toxicity - repeated exposure: Category 2  
H373 May cause damage to organs (Eyes, Kidney, Liver) through prolonged or repeated exposure.  
Acute aquatic toxicity: Category 1  
H400 Very toxic to aquatic life.  
Chronic aquatic toxicity: Category 1  
H410 Very toxic to aquatic life with long lasting effects.

**2.2 Label elements**

**Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Hazard label for supply/use required.



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**Hazardous components which must be listed on the label:**

- Tembotrione
- Isoxadifen-ethyl



**Signal word:** Warning

**Hazard statements**

- H302 Harmful if swallowed.  
 H361d Suspected of damaging the unborn child.  
 H373 May cause damage to organs (Eyes, Kidney, Liver) through prolonged or repeated exposure.  
 H410 Very toxic to aquatic life with long lasting effects.  
 EUH208 Contains Tembotrione, Isoxadifen-ethyl, 1,2-benzisothiazolin-3-one. May produce an allergic reaction.  
 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.  
 P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.  
 P501 Dispose of contents/container in accordance with local regulation.

**2.3 Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

**Chemical nature**

Suspension concentrate (=flowable concentrate)(SC)  
 Tembotrione 420 g/l, Isoxadifen-ethyl 210 g/l

**Hazardous components**

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Tembotrione	335104-84-2	Aquatic Chronic 1, H410 Skin Sens. 1, H317 Aquatic Acute 1, H400 Repr. 2, H361d STOT RE 2, H373	34,4
Isoxadifen-ethyl	163520-33-0	Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	17,2
Fatty alcohol ethoxylate	68131-39-5	Acute Tox. 4, H302 Eye Dam. 1, H318	>= 1,0 – < 3,0

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1,2-Propanediol	57-55-6 01-2119456809-23-xxxx	Not classified	>= 1,0
1,2-Benzisothiazol-3(2H)-one	2634-33-5	Acute Tox. 2, H330 Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	>= 0,005 – < 0,05

**Further information**

Tembotrione	335104-84-2	M-Factor: 100 (acute), 10 (chronic)
Isoxadifen-ethyl	163520-33-0	M-Factor: 1 (acute)
1,2-Benzisothiazol-3(2H)-one	2634-33-5	M-Factor: 1 (acute)

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures**

<b>General advice</b>	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
<b>Inhalation</b>	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
<b>Skin contact</b>	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

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

**Symptoms** To date no symptoms are known.

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

**Treatment** Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media**

<b>Suitable</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable</b>	High volume water jet



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<b>5.2 Special hazards arising from the substance or mixture</b>	Dangerous gases are evolved in the event of a fire.
<b>5.3 Advice for firefighters</b>	
<b>Special protective equipment for firefighters</b>	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
<b>Further information</b>	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

**Precautions** Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

**6.2 Environmental precautions** Do not allow to get into surface water, drains and ground water.

**6.3 Methods and materials for containment and cleaning up**

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Use personal protective equipment. Do not allow product to contact non-target plants. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.  
Check also for any local site procedures.

**6.4 Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

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**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

**Advice on safe handling** Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

**Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes separately. When using, do not eat, drink or smoke. Remove soiled clothing immediately and clean thoroughly before using again. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

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



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**Requirements for storage areas and containers** Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

**Suitable materials** HDPE (high density polyethylene)

**7.3 Specific end use(s)** Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Tembotrione	335104-84-2	0,15 mg/m3 (SK-SEN)		OES BCS*
Isoxadifen-ethyl	163520-33-0	1 mg/m3 (SK-SEN)		OES BCS*
1,2-Propanediol (Particulate.)	57-55-6	10 mg/m3 (TWA)	1995	ZA REL
1,2-Propanediol (Total vapour and particulates.)	57-55-6	470 mg/m3/150 ppm (TWA)	1995	ZA REL

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

**8.2 Exposure controls**

**Respiratory protection** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**Hand protection** Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.  
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0,4 mm
Protective index	Class 6
Directive	Protective gloves complying with EN 374.

**Skin and body protection** Wear long-sleeved shirt and long pants and shoes plus socks. Wear standard coveralls and Category 3 Type 4 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and

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should be professionally laundered frequently.

**General protective measures** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>Form</b>	suspension
<b>Colour</b>	white to light yellow
<b>Odour</b>	characteristic
<b>Odour Threshold</b>	No data available
<b>pH</b>	ca. 3,0 at 10 % (23 °C)
<b>Flash point</b>	>93,4 °C
<b>Minimum ignition energy</b>	Not applicable
<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Relative vapour density</b>	No data available
<b>Density</b>	1,22 g/cm <sup>3</sup> at 20 °C
<b>Water solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	Tembotrione: log Pow: -1,09 Isoxadifen-ethyl: log Pow: 3,8
<b>Viscosity, dynamic</b>	800 - 1.200 mPa.s at 20 °C
<b>Explosivity</b>	Not applicable
<b>9.2 Other information</b>	Further safety related physical-chemical data are not known.

**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

**Thermal decomposition** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.



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- 10.4 Conditions to avoid** Extremes of temperature and direct sunlight.
- 10.5 Incompatible materials** Store only in the original container.
- 10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

- Acute oral toxicity** LD50 (Rat) 1.750 mg/kg
- Acute inhalation toxicity** LC50 (Rat) > 2,1 mg/l  
Exposure time: 4 h  
Determined in the form of liquid aerosol.  
Highest attainable concentration.  
No deaths
- Acute dermal toxicity** LD50 (Rat) > 5.000 mg/kg
- Skin irritation** slight irritation (Rabbit)
- Eye irritation** Mild eye irritation. (Rabbit)
- Sensitisation** Non-sensitizing. (Guinea pig)

**Assessment STOT Specific target organ toxicity – single exposure**

Tembotrione: Based on available data, the classification criteria are not met.

Isoxadifen-ethyl: Based on available data, the classification criteria are not met.

**Assessment STOT Specific target organ toxicity – repeated exposure**

Tembotrione caused specific target organ toxicity in experimental animal studies in the following organ(s): Eyes, Kidney, Liver.

Isoxadifen-ethyl did not cause specific target organ toxicity in experimental animal studies.

**Assessment mutagenicity**

Tembotrione was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Isoxadifen-ethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Tembotrione caused an increased incidence of tumours in rats in the following organ(s): Cornea. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans. Isoxadifen-ethyl was not carcinogenic in lifetime feeding studies in rats and mice.

**Assessment toxicity to reproduction**

Tembotrione did not cause reproductive toxicity in a two-generation study in rats.

Isoxadifen-ethyl did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Tembotrione caused developmental toxicity only at dose levels toxic to the dams. Tembotrione caused a delayed ossification of foetuses, an increased incidence of variations. The developmental effects seen with Tembotrione are related to maternal toxicity.

Isoxadifen-ethyl did not cause developmental toxicity in rats and rabbits.

**Aspiration hazard**

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

**Further information**

Only acute toxicity studies have been performed on the formulated product.  
The non-acute information pertains to the active ingredient(s).

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**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

**Toxicity to fish** LC50 (Oncorhynchus mykiss (rainbow trout)) 5,41 mg/l  
Exposure time: 96 h

**Toxicity to aquatic invertebrates** EC50 (Daphnia magna (Water flea)) 33,5 mg/l  
Exposure time: 48 h

**Toxicity to aquatic plants** EC50 (Raphidocelis subcapitata (freshwater green alga)) 15,4 mg/l  
Growth rate; Exposure time: 72 h

**12.2 Persistence and degradability**

**Biodegradability** Tembotrione:  
Not rapidly biodegradable  
Isoxadifen-ethyl:  
Not rapidly biodegradable

**Koc** Tembotrione: Koc: 66  
Isoxadifen-ethyl: Koc: 2512

**12.3 Bioaccumulative potential**

**Bioaccumulation** Tembotrione:  
Does not bioaccumulate.  
Isoxadifen-ethyl:  
Does not bioaccumulate.

**12.4 Mobility in soil**

**Mobility in soil** Tembotrione: Mobile in soils  
Isoxadifen-ethyl: Slightly mobile in soils

**12.5 Results of PBT and vPvB assessment**

**PBT and vPvB assessment** Tembotrione: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).  
Isoxadifen-ethyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

**12.6 Other adverse effects**

**Additional ecological information** No other effects to be mentioned.

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**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**





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<b>Product</b>	It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.
<b>Contaminated packaging</b>	Do not re-use empty containers. Triple rinse containers. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

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**SECTION 14: TRANSPORT INFORMATION**

**SANS 10231**

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEMBOTRIONE, ISOXADIFEN-ETHYL SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

**IMDG**

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEMBOTRIONE, ISOXADIFEN-ETHYL SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

**IATA**

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TEMBOTRIONE, ISOXADIFEN-ETHYL SOLUTION )
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

No transport in bulk according to the IBC Code.

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**SECTION 15: REGULATORY INFORMATION**

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

**Further information**

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WHO-classification: III (Slightly hazardous)

**SECTION 16: OTHER INFORMATION****Text of the hazard statements mentioned in Section 3**

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H361d	Suspected of damaging the unborn child.
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.

**Abbreviations and acronyms**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

**SAFETY DATA SHEET** according to Regulation (EC) No. 1907/2006



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