Revision: 22.01.2014

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 22.01.2014

1 Identification of the substance/mixture and of the company/undertaking · English additional compounds · Product identifier · Trade name: Chlorpyrifos Oxon · Article number: S-968 · Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. · Application of the substance / the mixture matériau de référence certifié · Details of the supplier of the safety data sheet · Manufacturer/Supplier: SPEX CertiPrep 203 Norcross Avenue Metuchen, NJ 08840 USA · Further information obtainable from: product safety department · Emergency telephone number: Emergency Phone Number (24hours) CHEMTREC (800-424-9300) Outside US: 703-527-3887 2 Hazards identification · Classification of the substance or mixture · Classification according to Regulation (EC) No 1272/2008 GHS02 flame Flam. Liq. 2 H225 Highly flammable liquid and vapour. GHS07 Eye Irrit. 2 H319 Causes serious eye irritation. STOT SE 3 H336 May cause drowsiness or dizziness. Classification according to Directive 67/548/EEC or Directive 1999/45/EC Xi; Irritant R36: Irritating to eyes. F; Highly flammable Highly flammable. R11: R67: Vapours may cause drowsiness and dizziness. Information concerning particular hazards for human and environment: The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version. · Classification system: The classification is according to the latest editions of the EU-lists, and extended by company and literature data. · Label elements · Labelling according to EU guidelines: The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials. Code letter and hazard designation of product: Xi Irritant Highly flammable F · Risk nhrases: 11 Highly flammable. 36 Irritating to eyes. 67 Vapours may cause drowsiness and dizziness. · Safety phrases: Keep out of the reach of children. 2

9 Keep container in a well-ventilated place.

(Contd. on page 2)

EU

0,1%

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 22.01.2014

Trade name: Chlorpyrifos Oxon

46 If swallowed, seek medical advice immediately and show this container or label.

56 Dispose of this material and its container to hazardous or special waste collection point.

• Other hazards

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- $\cdot \textit{Description: Mixture of substances listed below with nonhazardous additions.}$
- · Dangerous components:

Dungerous componentsi				
CAS: 67-64-1	acetone	🗙 Xi R36; 👸 F R11	99,9%	
EINECS: 200-662-2		R66-67		
Index number: 606-001-00-8		🚸 Flam. Liq. 2, H225; 🚸 Eye Irrit. 2, H319; STOT SE 3, H336		
CHEMICAL IDENTIFICATION OF THE SUBSTANCE/PREPARATION				

5598-15-2 Chlorpyrifos Oxon

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- · Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
- Dilute with plenty of water.
- Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Ensure adequate ventilation. • Reference to other sections
- See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

- See Section 13 for disposal information.

7 Handling and storage

· Handling:

- · Precautions for safe handling
- Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- Frevent formation of derosols.
- Information about fire and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

(Contd. on page 3)

EU

Revision: 22.01.2014

(Contd. of page 1)

EU

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 22.01.2014

Trade name: Chlorpyrifos Oxon

Revision: 22.01.2014

(Contd. of page 2)

- \cdot Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · Control parameters

 Ingredients with 	limit values ti	hat require	monitoring at t	he workplace:
--------------------------------------	-----------------	-------------	-----------------	---------------

- 67-64-1 acetone
- IOELV Long-term value: 1210 mg/m³, 500 ppm

· Additional information: The lists valid during the making were used as basis.

- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- Use suitable respiratory protective device in case of insufficient ventilation.
- · Protection of hands:
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- · Penetration time of glove material
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- · Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

• Information on basic physical and • General Information • Appearance:	chemical properties	
Form:	Fluid	
Colour:	According to product specification	
· Odour:	Characteristic	
· Odour threshold:	Not determined.	
· pH-value:	Not determined.	
• Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 55 °C	
· Flash point:	-19 °C	
· Flammability (solid, gaseous):	Not applicable.	
	(Contd. on page 4	

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 22.01.2014

Revision: 22.01.2014

Trade name: Chlorpyrifos Oxon

	(Contd. of page 3	
· Ignition temperature:	465 °C	
· Decomposition temperature:	Not determined.	
· Self-igniting:	Product is not selfigniting.	
• Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.	
· Explosion limits:		
Lower:	2,6 Vol %	
Upper:	13,0 Vol %	
· Vapour pressure at 20 °C:	233 hPa	
· Density at 20 °C:	0,79 g/cm ³	
· Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
water:	Fully miscible.	
· Partition coefficient (n-octanol/wo	t ter): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	<i>99,9 %</i>	
VÕC (EC)	99,90 %	
• Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values relevant for classification:
- 67-64-1 acetone
- Oral LD50 5800 mg/kg (rat)
- Dermal LD50 20000 mg/kg (rabbit)
- · Primary irritant effect:
- on the skin: No irritant effect.
- · on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
- Irritant

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.

(Contd. on page 5)

EU

Revision: 22.01.2014

(Contd. of page 4)

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 22.01.2014

Trade name: Chlorpyrifos Oxon

· Additional ecological information:

- · General notes:
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information		
· UN-Number · ADR, IMDG, IATA	UN1090	
· UN proper shipping name · ADR · IMDG, IATA	1090 ACETONE, mixture ACETONE, mixture	
· Transport hazard class(es)		
· ADR, IMDG, IATA		
· Class	3 Flammable liquids.	
· Label	3	
· Packing group · ADR, IMDG, IATA	II	
• Environmental hazards: • Marine pollutant:	No	
· Special precautions for user	Warning: Flammable liquids.	
Danger code (Kemler):	33	
· EMS Number:	F-E,S-D	
• Transport in bulk according to Annex II of MARP Code	<i>OL73/78 and the IBC</i> Not applicable.	
· Transport/Additional information:		
· ADR		
· Limited quantities (LQ)	IL	
• Transport category • Tunnel restriction code	2 D/E	
· UN "Model Regulation":	UN1090, ACETONE, mixture, 3, II	

15 Regulatory information

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H225 Highly flammable liquid and vapour.

(Contd. on page 6) EU

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Trade name: Chlorpyrifos Oxon
(Contd. of page 5)
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
R11 Highly flammable.
R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness or cracking.
R60 Repeared exposure may equal skin all stress of cracking. R67 Vapours may cause drowsiness and dizziness.
· Department issuing MSDS: product safety department
· Contact:
SPEX CertiPrep Inc.
732-549-7144
· Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Substances
ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent