

Material Safety Data Sheet according to 91/155/EWG

date of print: 07.01.2003

prepared: December 2002

1. Identification of preparation and company:

* Product data:

* Trade name: **LegioCid[®]**

* Distributor: WAPOTEC GmbH
Carola-Blome-Str. 7
5020 Salzburg
Tel.: ++43/ 662 / 43 43 420
Fax: ++43/ 662 / 43 43 423

* Information: Mr. Walter Polak - General Manager

2. Composition/information on ingredients:

* Chemical composition:

* Description: Tetrachlorodecaoxide-Complex (TCDO-Anion)
Stabilised oxygen in a chlorine dioxide-chlorite matrix
ELINCS-No. 420-970-2
Preparation according to patented process P. Berger

* Hazardous components:

3. Hazards identification:

* Hazards description:

* Special hazard for human beings and environment:
develops chlorine dioxide when it comes in touch with concentrated acids.

* Classification system:
information given by company /publications and special literature.

4. First aid measures:

* General:
wash wet clothes immediately with plenty of water.

* Inhalation:
aqueous solution - no consequences.

* Skin:
flush thoroughly with plenty of water.

* Eye:
in case of eye contact flush with plenty of water. If irritation develops, call a physician.

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- * Ingestion:
drink as much water as possible and go to fresh air. See physician.

5. Fire fighting measures:

- * Suitable extinguishing media: product is not inflammable
- * Special protective equipment: eye protection, protection glasses

6. Accidental release measures:

- * Personal precautions:
- * Environmental precautions: dilute with plenty of water
- Methods for cleaning / spillage: dilute with plenty of water and dispose off as waste water (see also chemical, technical and legal regulations), high self-cleaning activity

7. Handling and storage:

- * Handling:
no special precautions necessary.
- * Notice for secure handling:
no special precautions necessary.
- * Notice for combustion:
product is not inflammable. No special precautions necessary.
- * Storage:
do no store original can gas tight. Avoid direct sun.
- * Storage together with other material:
do no store together with acids and chlorine products.
- * Further information on storage conditions:
storage temperature: + 5°C up to +35°C - protect from the sun.
- * Classification:

8. Exposure control and personal protective equipment:

- * Additional notice for design of technical installations:
- * Components to be controlled with limiting values:
the product does not contain relevant quantities of substances with components to be controlled with limiting values (at work).
- * Additional notice:

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- * Personal protection:
- * General protection and hygiene measurements:
keep away from food and beverage, do not eat or drink during work, wash hands before break and after work.
- * Respiratory protection:
- * Hand protection:
- * Eye protection: protection glasses

9. Physical and chemical properties: (concentrate)

- * Appearance: aqueous solution
- * Colour: lime green
- * Odour: typical, not displeasing
- * Change of condition:
- * Melting point: -11 °C
- * Boiling point: 102,6 °C/98,1 kPa
- * Flammability:
- * Autoflammability:
the product is none-flammable.
- * Danger of explosion:
the product is non-explosive.
- * Surface tension: 79,5 ± 0,31 mN / 19,7°C (P = 95%)
- * Vapour pressure: 298 K / 2,7 kPa
293 K / 2,0 kPa
- * Density: (20°C) 1,099 g/cm³ concentrate
- * Solubility in / miscibility with:
- * Water: soluble, consolute
- * pH-value: approx. 8,2-8,4
- * Viscosity: (20°C) 1,1 mPas
- * Solvent content:

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* Organic solvents:

* Water: consolute

10. Stability and reactivity:

* Thermal decomposition / conditions to be avoided:
no decomposition when using according to regulations.

* Dangerous reactions: no dangerous reactions known.

* Dangerous decomposition products:
if product is not handled according to regulations and in case of contamination with concentrated acid, chlorine dioxide can develop.

11. Toxicological information:

* Acute toxicity: LD 50 rat 4,58 ml/kg (24 hours)
LD 50 rabbit negative 10 % solution does not actuate conjunctival irritations after application. Scale of point values: Etad-Sub-Committee for Toxicology
* classified non-irritant (LC-50/96 h > 1000 ppm)
* concentrate very poor conjunctival irritations up to 24 hours after application.

* Primary irritation:

* Skin: classified non-irritant

* Eye: classified „non irritant“ (ETAD-Sub.-Comm. for Tox.)

* Sensitisation: no sensitise consequence known.

* Additional toxicological notices:
no toxicological consequences on skin known (Keratinozyten).

12. Ecological information:

* General:
there is no impairment expected when diluting with plenty of water. LegioCid is suitable for cleaning waste water.
Toxicity: 1. Trout, absolutely non-toxic for fishes
2. Daphnie 10 mg / l (LC 50) absolutely non-toxic

13. Disposal consideration:

* Product:

* Recommendation:

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dilute with plenty of water, can be disposed off directly to waste water (see chemical, technical respect. legal regulations).

- * Dirty packing material:
- * Recommendation:
Wash contaminated packing material with plenty of water.
- * Recommended cleaning agent: water.

14. Transport information:

- * Land freight ADR / RID and GGVS / GGVE:
non-hazardous good.
- * ADR / RID - GGVS / E classification:
- * Figure / letter:
- * Kemler / number:
- * UN-number:
- * Sea freight IMDG / GGVSee:
- * IMDG / GGVSee-classification:
- * Page:
- * UN-number:
- * Group of packing material:
- * EMS-number:
- * MFAG:
- * Air freight ICAO-TI and IATA-DGR:
- * ICAO / IATA-classification:

15. Regulatory information:

- * Identification according to EWG-regulations:
- * Identification letter and danger denotation of product:
- * Danger defining components for labelling:

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Develops chlorine dioxide when in touch with concentrated acids.

- * S-Sentences: S 2 keep out of reach of children
S 12 do not seal can gas tight
S 14 keep away from acids
S 15 protect from heat
S 26 in case of eye contact, wash immediately and see physician

According to existing data the product is no dangerous preparation in the sense of chemical law or material decree. However, the usual precautions while handling the product must be considered.

- * National instructions:
- * Classification according to VbF: none
- * Water endangering classification: WGK 2

16. Other information:

All information is based on today's experience and knowledge. It should describe our products as far as security is concerned and it therefore has no importance to secure certain qualities.

- * Person responsible: Mr. Walter Polak - General Manager