

## E2 Control

### Material Safety Data Sheet according to 1907/2006/EC Article 31 (REACH)

<b>1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND THE COMPANY UNDERTAKING</b>	
<b>Product name:</b>	E2 control
<b>Product code:</b>	PPC-ES15
<b>Synonyms:</b>	β-Estradiol
<b>Recommended uses:</b>	Not for use in humans, not for diagnostic purposes. Research use only.
<b>Supplier:</b>	Xenometrix AG, Gewerbestrasse 25, CH-4123 Allschwil, Switzerland
<b>Emergency contact numbers:</b>	+41 61 482 14 34
<b>Country of origin:</b>	Switzerland
<b>HS Code:</b>	3822.1900
<b>2. HAZARDS IDENTIFICATION</b>	
<b>Classification:</b>	According to regulation (EC) No 1272/2008.
<b>Label element:</b>	Keep out of the reach of children. Pictogram: 
<b>Hazard statement(s):</b>	Signal word: <b>Danger</b> H351 Suspected of causing cancer. H360 May damage fertility or the unborn child. H362 May cause harm to breast-fed children. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement(s):</b>	P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust. P263 Avoid contact during pregnancy and while nursing. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P308 + P313 IF exposed or concerned: Get medical advice/attention.
<b>Other hazards:</b>	Carcinogenicity (Category 2).
<b>3. COMPOSITION / INFORMATION ON INGREDIENTS</b>	
<b>Product:</b>	Molecular formula $C_{18}H_{24}O_2$ Molecular weight 272.38 g/mol
<b>Description:</b>	Component is used as positive control in an assay.
<b>CAS-No:</b>	50-28-2
<b>EINECS Number:</b>	200-023-8
<b>Index-No:</b>	No data available.
<b>Other information:</b>	Component is a powder.
<b>4. FIRST AID MEASURES</b>	
<b>Eye contact:</b>	Remove contact lenses. Rinse thoroughly with plenty of water for at least 15 minutes. If contact lenses can't remove, continue washing. Consult a physician or an expert.
<b>Skin contact:</b>	Remove contaminated clothing and wash before renew use. Wash off with soap and plenty of water. Consult a physician.
<b>Inhalation:</b>	Move person into fresh air and control respiration. If not breathing, give artificial respiration. Consult a physician.
<b>Ingestion:</b>	Never give anything by mouth to an unconscious person. Consult a physician. Never cause nausea. Rinse mouth with water. Concerned

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person should drink water, better milk (two glasses at most). If nausea: Beware swallowing and keeping in recovery position.

<b>5. FIRE-FIGHTING MEASURES</b>	
<b>Extinguishing media:</b>	Suitable extinguishing media, water Foam Carbon dioxide (CO <sub>2</sub> ) Dry powder. Unsuitable extinguishing media, for this substance/mixture no limitations of extinguishing agents are given.
<b>Special hazards arising from the substance or mixture:</b>	This product is combustible. Fire may cause generally accumulation of: Carbon oxides (CO <sub>x</sub> ); Development of hazardous combustion gases or vapours possible in the event of fire.
<b>Advice for firefighters:</b>	Special protective equipment for firefighters. Wear self-contained breathing apparatus. Keeping a safe distance or by wearing suitable protective clothing.
<b>6. ACCIDENTAL RELEASE MEASURES</b>	
<b>Personal precautions:</b>	Use proper personal protective equipment as indicated in Section 8. Wear self-contained breathing apparatus, eye protection and gloves. Keep personal hygiene. Avoid contact with skin and eyes. Avoid dust formation. Avoid breathing dust, vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Environmental precautions:</b>	Do not let product enter the drains.
<b>Methods and materials for containment and cleaning up:</b>	Ensure adequate ventilation. Avoid direct contact with the product. Evacuate personnel to safe areas. Sweep up with suitable material. Keep in suitable, closed containers for disposal. Clean up affected area.
<b>7. HANDLING AND STORAGE</b>	
<b>Handling:</b>	Handle in accordance with good laboratory hygiene and safety practice. This product is not combustible. Firefighting measures see section 5. Open container carefully. No other information available.
<b>Storage:</b>	Store in the original container as much as possible. Recommended storage temperature: -20°C.
<b>8. EXPOSURE CONTROLS / PERSONAL PROTECTION</b>	
<b>Eye protection:</b>	Wear safety glasses with side protection. Wear appropriate protective safety glasses with side-shields conforming to EN166, chemical safety goggles or face-shield (min. 8-inch) as described by OSHA's eye and face protection regulations. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
<b>Skin protection:</b>	Wear appropriate protective gloves to prevent skin exposure, as defined in EU Directive standard EN 16523 derived from it.
<b>Body protection:</b>	Appropriate protective clothing, overalls.
<b>Respiratory protection:</b>	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N95 (US) or type P1 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>	
<b>Appearance:</b>	White powder in a vial.
<b>Odour:</b>	No data available.
<b>pH:</b>	No data available.

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<b>Melting point:</b>	176-180 °C.
<b>Boiling point:</b>	413.45 °C.
<b>Flash point:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Flammability:</b>	No data available.
<b>Self-ignition temp.:</b>	No data available.
<b>Danger of Explosion:</b>	No data available.
<b>lower explosion limit:</b>	No data available.
<b>upper explosion limit:</b>	No data available.
<b>Decomposition Temp.:</b>	No data available.
<b>Kinematic Viscosity:</b>	No data available.
<b>Vapor Pressure:</b>	No data available.
<b>Relative Density (20°C):</b>	1,2 at 20 °C.
<b>Relative Gas Density (20°C):</b>	No data available.
<b>Solubility (20°C):</b>	0,0015 g/l at 20 °C.
<b>Partition coefficient n-octanol/water:</b>	< 0,1 hPa at 20 °C.
<b>Log KOW:</b>	No data available.

#### 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Stable under normal storage conditions and recommended use.
<b>Conditions to avoid:</b>	No data available.
<b>Incompatibilities with other materials:</b>	No data available.
<b>Hazardous decomposition products:</b>	Carbon oxides.

#### 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	LD50: Rat 5.000 mg/kg LC50: No data available.
<b>RTECS#:</b>	KG2975000
<b>Skin corrosion/irritation:</b>	May causes skin irritation.
<b>Serious eye damage/eye irritation:</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization:</b>	May be harmful if inhaled
<b>Carcinogenicity rat:</b>	Suspected of causing cancer.
<b>Carcinogenicity mouse:</b>	Suspected of causing cancer.
<b>Reproductive toxicity:</b>	Data not available.
<b>Specific target organ toxicity:</b>	Data not available.
<b>Aspiration hazard:</b>	Data not available.
<b>Signs and symptoms of exposure:</b>	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
<b>Target organs:</b>	Data not available.
<b>Potential health effects:</b>	Eye: May cause serious eye irritation. Skin: May be harmful by skin absorption. May cause skin irritation. Ingestion: Harmful if swallowed. Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. Chronic: No information found.
<b>Other:</b>	No data available.

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## 12. ECOLOGICAL INFORMATION

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<b>Toxicity:</b>	Toxicity to fish, LC50 0,46 mg/L and NOEC 0,000029 mg/L Toxicity to daphnia and other aquatic invertebrates semi-static test NOEC 0,139 mg/L Toxicity to algae static test ErC50 2,48 mg/L
<b>Persistence and degradability:</b>	This product is not readily biodegradable.
<b>Bioaccumulative potential:</b>	No data available
<b>Mobility in soil:</b>	No data available
<b>Result of PBT and vPvB assessment:</b>	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
<b>Other adverse effects:</b>	No data available

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## 13. DISPOSAL CONSIDERATION

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<b>Waste treatment methods:</b>	Avoid discharge in environment.
<b>Treatment key:</b>	Ask your local administration.
<b>Contaminated packaging/ product:</b>	No data available.
<b>Special precaution:</b>	No data available.
<b>Other:</b>	Observe all federal, state and local environmental regulations. Mix or dissolve the material in a combustible solvent and burn in chemical incinerator equipped with an afterburner and scrubber. Contact a licensed professional waste disposal service to dispose of this material.

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## 14. TRANSPORT INFORMATION

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<b>ADR / RID</b>	3077 (environmentally hazardous substance)
<b>IMDG</b>	3077 (environmentally hazardous substance)
<b>IATA</b>	3077 (environmentally hazardous substance)

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## 15. REGULATORY INFORMATION

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This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available.  
Chemical Safety Assessment: A chemical safety assessment was not carried out for this product

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## 16. ADDITIONAL INFORMATION

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