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MSDS No: M01115

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name:** ToxTrak™ Accelerator Solution  
**Catalog Number:** 2560836

HACH LANGE GmbH  
Willstätterstrasse 11  
40549 Düsseldorf, Germany  
+49 -(0)211 -52880

Emergency Telephone Numbers:  
(Poison Information Center Main)  
(+49 (0) 6131 19240) 24 HR

**SDS Number:** M01115

**Chemical Name:** Not applicable

**Chemical Formula:** Not applicable

**Chemical Family:** Not applicable

**Use of the substance/preparation:** Respiration accelerator in toxicity test

**CAS No.:** Not applicable

**Hazard:** Causes severe eye irritation. Causes severe skin irritation. Experimental teratogen.

**Date of MSDS Preparation:**

**Day:** 13

**Month:** 01

**Year:** 2006

**Additional Emergency Response Numbers:** Austria: +49 (0)6131 19240, Belgium: +32 -(0)70 -245245, France: +33 (0)1 -40370404, Italy: +39 -026101029, Netherlands: +31 -(0)30 -2748888, Switzerland: +41 -(0)1 -2515151

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Glutaric dialdehyde

**EEC Number:** 2038565

**CAS No.:** 111 -30 -8

**Percent Range:** 10,0 - 20,0

**Percent Range Units:** weight / volume

**Ingredient EEC Symbol:** C - CORROSIVE

**Ingredient R phrase(s) (R phrase details given in Heading 16):** R 20/22 R 34 R 42/43

**TLV:** 0,2 ppm Ceiling

**PEL:** 0,2 ppm Ceiling

**EU Occupational Exposure Limits:** For Gluteraldehyde: 0,1 ppm (0,42 mg/m<sup>3</sup>)

#### Demineralized Water

**EEC Number:** 2317912

**CAS No.:** 7732185

**Percent Range:** > 85

**Percent Range Units:** volume / volume

**Ingredient EEC Symbol:** Not applicable

**Ingredient R phrase(s) (R phrase details given in Heading 16):** Not applicable

**TLV:** Not established

**PEL:** Not established

**EU Occupational Exposure Limits:** Not established

### 3. HAZARDS IDENTIFICATION

**Emergency Overview:**

**Appearance:** Colorless to yellow liquid

**Odor:** Pungent

**EU Symbols:** C - CORROSIVE

**R PHRASES:** R 20/22: Harmful by inhalation and if swallowed. R 34: Causes severe burns. R 42/43: May cause sensitization by inhalation and skin contact.

**Protective Equipment:**

**Potential Health Effects:**

**Eye Contact (EC):** Causes burns

**Skin Contact (EC):** Causes burns May cause allergic reaction

**Skin Absorption (EC):** May be absorbed through skin.

**Target Organs (SA E):** None Reported

**Ingestion (EC):** May cause: abdominal pain nausea vomiting diarrhea dizziness drowsiness weakness circulatory collapse coma

**Target Organs (Ing E):** None Reported

**Inhalation:** May cause: headache nausea vomiting inflammation and swelling of the larynx and bronchi shortness of breath burning sensation coughing allergic skin reaction

**Target Organs (Inh E):** Lungs

**Medical Conditions Aggravated:** Pre-existing: Respiratory conditions

**Chronic Effects:** May cause reproductive and fetal effects by all routes of exposure.

**Cancer / Reproductive Toxicity Information:**

This product does NOT contain any IARC listed chemicals.

**Additional Cancer / Reproductive Toxicity Information:** Contains: an experimental teratogen.

**Toxicologically Synergistic Products:** None reported

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## 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes. Call physician.

**Skin Contact (First Aid):** Wash skin with plenty of water for 15 minutes. Remove contaminated clothing. Call physician immediately.

**Ingestion (First Aid):** Do not induce vomiting. Call physician immediately.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. Call physician.

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## 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Can burn in fire, releasing toxic vapors.

**Hazardous Combustion Products:** Toxic fumes of: carbon monoxide, carbon dioxide.

**Fire / Explosion Hazards:** None reported

**Static Discharge:** Not applicable

**Mechanical Impact:** Not applicable

**Extinguishing Media:** Water. Dry chemical. Alcohol foam. Carbon dioxide

**Extinguishing Media NOT To Be Used:** Not applicable Not applicable Not applicable Not applicable

**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear. Evacuate area and fight fire from a safe distance.

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## 6. ACCIDENTAL RELEASE MEASURES

**Spill Response Notice:**

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**Containment Technique:** Stop spilled material from being released to the environment.

**Clean-up Technique:** Absorb spilled liquid with non-reactive sorbent material. Dispose of material in an E.P.A. approved hazardous waste facility. Decontaminate the area of the spill with a soap solution.

**Evacuation Procedure:** Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: a gallon or more of liquid is spilled.

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## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes skin clothing Do not breathe mist or vapors. Maintain general industrial hygiene practices when using this product. Wash thoroughly after handling.

**Storage:** Keep away from: oxidizers

**Special Packaging Instructions:** Not applicable

**Use of the substance /preparation:** Respiration accelerator in toxicity test

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## 8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

**Engineering Controls:** Have a safety shower nearby. Have an eyewash station nearby. Use a fume hood to avoid exposure to dust, mist or vapor. Maintain general industrial hygiene practices when using this product.

**Personal Protective Equipment:**

**Eye Protection:** safety glasses with top and side shields

**Skin / Hand Protection:** nitrile gloves lab coat

**Inhalation Protection:** laboratory fume hood

**Precautionary Measures:** Avoid contact with: eyes skin clothing Do not breathe: mist/vapor Keep away from: oxidizers

**TLV:** Not established

**PEL:** Not established

**EU Occupational Exposure Limits:** Not established

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## 9. PHYSICAL / CHEMICAL PROPERTIES

**Appearance:** Colorless to yellow liquid

**Physical State:** Liquid

**Odor:** Pungent

**pH:** 4,06 @ 23,4°C

**Vapor Pressure:** Not determined

**Vapor Density (air = 1):** Not determined

**Boiling Point:** 98,5°C

**Melting Point:** Not applicable

**Flash Point:** >212°F (100°C)

**Method:** Closed cup

**Autoignition Temperature:** Not determined

**Flammability Limits:**

**Lower Explosion Limits:** Not applicable

**Upper Explosion Limits:** Not applicable

**Specific Gravity (water = 1):** 1,012

**Evaporation Rate (water = 1):** 0,981

**Volatile Organic Compounds Content:** Glutaric dialdehyde: California SCAQMD Rule 443,1 VOC: 267,89 g,1 VOC

**Partition Coefficient (n -octanol / water):** Not applicable

**Solubility:**

**Water:** Miscible

**Acid:** Not determined

**Other:** Not determined

**Metal Corrosivity:**

**Steel:** 0,022 in/yr

**Aluminum:** 0,002 in/yr

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## 10. STABILITY / REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.

**Conditions to Avoid:** Extreme temperatures

**Reactivity / Incompatibility:** Incompatible with: oxidizers

**Hazardous Decomposition:** Toxic fumes of: carbon dioxide carbon monoxide

**Hazardous Polymerization:** Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

**Product Toxicological Data:**

**LD50:** None reported

**LC50:** None reported

**Dermal Toxicity Data:** Glutaric dialdehyde: Skin rabbit LD50 = 2560 mg/kg

**Skin and Eye Irritation Data:** Glutaric dialdehyde: Skin human 6 mg/3D -intermittant - SEVERE; Skin rabbit 13 mg open - MILD; Skin rabbit 500 mg/24H - SEVERE; Eye rabbit 1 mg - SEVERE; Eye rabbit 250 µg/24H SEVERE

**Mutation Data:** None reported

**Reproductive Effects Data :** Sister chromatid exchange - Hamster: ovary 110 µg/l; Oral mouse TDLo 6 g/kg (female 6 15D post) : Teratogenic effects; Oral rat TDLo 4370 mg/kg (female 35D pre) Reproductive effects

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**Ingredient Toxicological Data:** Glutaric dialdehyde: Oral rat LD 50 = 134 mg/kg; Oral mouse LD50 = 100 mg/kg

This product does NOT contain any IARC listed chemicals.

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## 12. ECOLOGICAL INFORMATION

**Product Ecological Information:** --

No ecological data available for this product.

**Ingredient Ecological Information:** --

No ecological data available for the ingredients of this product.

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## 13. DISPOSAL CONSIDERATIONS

**NOTICE (Disposal):** These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country -specific regulations or must be passed to a packaging return system.

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## 14. TRANSPORT INFORMATION

**I.C.A.O.:**

**I.C.A.O. Proper Shipping Name:** Not Currently Regulated

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**ICAO Hazard Class:** NA

**ICAO Subsidiary Risk:** NA

**ICAO UN/ID Number:** NA

**ICAO Packing Group:** NA

**I.M.O.:**

**I.M.O. Proper Shipping Name:** Not Currently Regulated

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**I.M.O. Hazard Class:** NA

**I.M.O. Subsidiary Risk:** NA

**I.M.O. UN Number:** NA

**I.M.O. Packing Group:** NA

**A.D.R.:**

**A.D.R. Proper Shipping Name:** Not Currently Regulated

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**A.D.R Hazard Class:** NA

**A.D.R. Subsidiary Risk:** NA

**A.D.R. UN -Number:** NA

**A.D.R. Packing Group:** NA

**Additional Information:** This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Pro per Shipping Name: Chemical Kit Hazard Class: 9 UN Number 3316

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## 15. REGULATORY INFORMATION

**National Inventories:**

**EEC Inventory Status:** All ingredients used to make this product are listed on EINECS / ELINCS.

**EEC Number:** Not applicable

**EEC LABEL COPY:**

**EU Symbols:** C - CORROSIVE

**R PHRASES:** R 20/22: Harmful by inhalation and if swallowed. R 34: Causes burns. R 42/43: May cause sensitization by inhalation and skin contact.

**S PHRASES:** S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S

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## 16. OTHER INFORMATION

**References:** TLV's Threshold Limit Values and Biological Exposure Indices for 1992 -1993. American Conference of Governmental Industrial Hygienists, 1992. Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332 -2983. Vendor Information. Technical Judgment. NIOSH Registry of Toxic Effects of Chemical Substances, 1985 -86. Cincinnati: U.S. Department of Health and Human Services, April, 1987. The Merck Index, 11th Ed. Rahway, New Jersey: Merck and Co., Inc., 1989. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989.

**R PHRASES:** R 20/22: Harmful by inhalation and if swallowed. R 34: Causes burns. R 42/43: May cause sensitization by inhalation and skin contact.

**Use of the substance/preparation:** Respiration accelerator in toxicity test

**Revision Summary:** Updates in Section(s) 14,

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### Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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