

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** C108C  
**Product Name:** Low Odor Brake & Parts Clean
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- 1.3 Details of the Supplier of the Safety Data Sheet:**
- |                          |   |                      |               |
|--------------------------|---|----------------------|---------------|
| <b>Company Name:</b>     | CYCLO INDUSTRIES, INC.<br>902 SOUTH US HIGHWAY 1<br>JUPITER, FL 33477 | <b>Phone Number:</b> | (800)843-7813 |
| <b>Web site address:</b> | www.cyclo.com   |                      |               |
| <b>Information:</b>      | First Aid Emergency (Outside U.S.)                                    |                      | (312)906-6194 |
- 1.4 Emergency telephone number:**
- |                           |                         |               |
|---------------------------|-------------------------|---------------|
| <b>Emergency Contact:</b> | First Aid Emergency     | (800)752-7869 |
|                           | CHEMTREC (703) 527-3887 | (800)424-9300 |

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:**  
Flammable Liquids, Category 2  
Skin Corrosion/Irritation, Category 2  
Serious Eye Damage/Eye Irritation, Category 2A  
Skin Sensitization, Category 1  
Target Organ Systemic Toxicity (single exposure), Category 3  
Aspiration Toxicity, Category 1
- 2.1.2 Classification according to Directive 1999/45/EC:**
- 2.2 Label Elements:**
- 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:**



**GHS Signal Word:** Danger

**GHS Hazard Phrases:**

H225: Highly flammable liquid and vapor.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H317: May cause an allergic skin reaction.  
H335: May cause respiratory irritation.  
H304: May be fatal if swallowed and enters airways.  
H280: Contents under pressure. May explode if heated.

**GHS Precaution Phrases:**

P210: Keep away from heat/sparks/open flames/hot surfaces - No smoking.  
P280: Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting equipment.  
P264: Wash hands thoroughly after handling.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.

**GHS Response Phrases:**

P370+378: In case of fire, use alcohol foam, carbon dioxide or dry chemical for extinction.

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

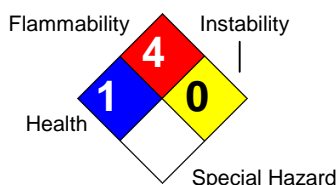
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

**GHS Storage and Disposal Phrases:**

P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

P203+233: Store container tightly closed in well-ventilated place.

**2.2.2 Labeling according to Directive 1999/45/EC:**
**Hazard Rating System:**

**2.3 Adverse Human Health Effects and Symptoms:**
**Section 3. Composition/Information on Ingredients**

CAS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	Risk Phrases/ GHS Classification
142-82-5	Heptane	47.0 -50.0 %	205-563-8 601-008-00-2	F; Xn; N; R11-38-50/53-65-67 Flam. Liq. 2: H225 Asp. Toxic. 1: H304 Skin Corr. 2: H315 TOST (SE) 3: H335 H336 Aquatic (A) 1: H400 Aquatic (C) 1: H410
124-38-9	Carbon dioxide	7.0 -9.0 %	204-696-9 NA	No phrases apply. No data available.
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene	1.0 -1.5 %	227-813-5 601-029-00-7	Xi;N; R10-38-43-50/53 Flam. Liq. 3: H226 Skin Corr. 2: H315 Skin Sens. 1: H317 Aquatic (A) 1: H400 Aquatic (C) 1: H410
67-63-0	Isopropyl alcohol	9.0 -11.0 %	200-661-7 603-117-00-0	F; Xi; R11-36-67 Flam. Liq. 2: H225 Eye Damage 2A: H319 TOST (SE) 3: H335 H336
67-64-1	Acetone	38.0 -42.0 %	200-662-2 606-001-00-8	F; Xi; R11-36-66-67 Flam. Liq. 2: H225 Eye Damage 2A: H319 TOST (SE) 3: H335 H336



### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:** If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of skin contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes, and launder before reuse. If in eyes, rinse cautiously with water for several minutes, Remove contact lenses, if present and easy to do. Continue rinsing. Call physician immediately if adverse reaction occurs.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Alcohol foam, carbon dioxide, dry chemical. Use water spray to keep containers cool that are exposed to heat or flames.

**5.2 Flammable Properties and Hazards:** No data available.

**Flash Pt:** 25.00 F (-3.9 C) Method Used: TAG Closed Cup

**Explosive Limits:** LEL: 1.05 UEL: 6.7

**Autoignition Pt:** 399.00 F (203.9 C)

**5.3 Fire Fighting Instructions:** Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Vapor may cause flash fire.

### Section 6. Accidental Release Measures

**6.3 Methods and Material For Containment and Cleaning Up:** Wear appropriate protective clothing and equipment to prevent skin and eye contact. Contain any liquid from leaking containers. Avoid all sources of ignition; heat, sparks and flames. Persons not trained should evacuate area. Leaking containers should be removed to an isolated, well-ventilated area and transferred to other suitable containers. Do not puncture or incinerate container. Contents under pressure. Wipe, scrape or soak up in an inert material and put in a container intended for flammable materials for disposal. Do not allow to enter sanitary drains, sewer or surface and subsurface waters. Keep out of lakes, ponds or streams.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Keep away from heat/sparks/open flames/hot surfaces - No smoking. Wear protective gloves/clothing and eye/face protection as specified by the manufacturer/supplier or the competent authority. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Wash hands thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Keep out of the reach of children.

**7.2 Precautions To Be Taken in Storing:** Do not store above 120 degrees F. Exposure to high temperatures may cause bursting. Do not store in passenger compartment of automobile.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

CAS #	Partial Chemical Name	Britain EH40	France VL	Europe
142-82-5	Heptane	TWA: 2085 mg/m3 (500 ppm) STEL: ()	TWA: 1668 mg/m3 (400 ppm) STEL: 2085 mg/m3 (500 ppm)	TWA: 2085. mg/m3
124-38-9	Carbon dioxide	TWA: 9150 mg/m3 (5000 ppm) STEL: 27400 mg/m3 (15000 ppm)	TWA: 9000 mg/m3 (5000 ppm)	TWA: 9000 mg/m3



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5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene	No data.	No data.	No data.
67-63-0	Isopropyl alcohol	TWA: 999 mg/m <sup>3</sup> (400 ppm) STEL: 1250 mg/m <sup>3</sup> (500 ppm)	STEL: 980 mg/m <sup>3</sup> (400 ppm)	No data.
67-64-1	Acetone	TWA: 1210 mg/m <sup>3</sup> (500 ppm) STEL: 3620 mg/m <sup>3</sup> (1500 ppm)	TWA: 1210 mg/m <sup>3</sup> (500 ppm) STEL: 2420 mg/m <sup>3</sup> (1000 ppm)	TWA: 1210 mg/m <sup>3</sup>
CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
142-82-5	Heptane	PEL: 500 ppm	TLV: 400 ppm	No data.
124-38-9	Carbon dioxide	PEL: 5000 ppm	TLV: 5000 ppm STEL: 30,000 ppm	No data.
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene	No data.	No data.	No data.
67-63-0	Isopropyl alcohol	PEL: 400 ppm	TLV: 200 ppm STEL: 400 ppm	No data.
67-64-1	Acetone	PEL: 1000 ppm	TLV: 500 ppm STEL: 750 ppm	No data.

### 8.2 Exposure Controls:

**8.2.1 Engineering Controls (Ventilation etc.):** Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations. Use in a well ventilated area.

### 8.2.2 Personal protection equipment:

**Eye Protection:** Chemical goggles; also wear a face shield if splashing hazard exists.

**Protective Gloves:** Avoid skin contact. Wear protective clothing and gloves.

**Other Protective Clothing:** Avoid skin contact. Wear protective clothing and gloves.

**Respiratory Equipment (Specify Type):** Use in a well ventilated area. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Do not breathe mist or vapor.

## Section 9. Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Appearance and Odor:</b>	Colorless to pale yellow liquid. Citrus odor.
<b>pH:</b>	NE
<b>Melting Point:</b>	NE
<b>Boiling Point:</b>	181.00 F (82.8 C)
<b>Flash Pt:</b>	25.00 F (-3.9 C) Method Used: TAG Closed Cup
<b>Evaporation Rate:</b>	NE
<b>Explosive Limits:</b>	LEL: 1.05 UEL: 6.7
<b>Vapor Pressure (vs. Air or mm Hg):</b>	NE
<b>Vapor Density (vs. Air = 1):</b>	NE
<b>Specific Gravity (Water = 1):</b>	.746
<b>Solubility in Water:</b>	Negligible



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Autoignition Pt: 399.00 F (203.9 C)

### 9.2 Other Information

Percent Volatile: 45.09 % by weight.

## Section 10. Stability and Reactivity

- 10.1 Reactivity:** No data available.
- 10.2 Stability:** Unstable [ ] Stable [ X ]
- 10.3 Conditions To Avoid - Hazardous Reactions:** No data available.
- Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]
- 10.4 Conditions To Avoid - Instability:** Stable under normal conditions of handling, use and transportation. Keep away from heat, sparks and flame. Avoid any source of ignition. Do not expose to heat or store at temperatures above 120 degrees F.
- 10.5 Incompatibility - Materials To Avoid:** Contact with oxidizing agents, sulfuric acid, nitric acid, chlorine compounds, strong acids, alkalis, potassium t-butoxide, nitrogen tetraoxide, beryllium dihydride, magnesium.
- 10.6 Hazardous Decomposition Or Byproducts:** Carbon monoxide. Carbon dioxide, formaldehyde.

## Section 11. Toxicological Information

- 11.1 Information on Toxicological Effects:** No data available.
- CAS# 142-82-5:  
Other Studies:, TDLo, Oral, Rat, 60.00 GM/KG, 3 W.  
Results:  
Kidney, Ureter, Bladder: Changes in liver weight.  
- National Technical Information Service, Vol/p/yr: OTS0571116,
- Other Studies:, TDLo, Oral, Rat, 260.0 GM/KG, 13 W.  
Results:  
Kidney, Ureter, Bladder: Changes in bladder weight.  
Endocrine:Hypoglycemia.  
Nutritional and Gross Metabolic:Weight loss or decreased weight gain.  
- National Technical Information Service, Vol/p/yr: OTS0571116,
- Other Studies:, TCLo, Inhalation, Rat, 4000. PPM, 6 D.  
Results:  
Brain and Coverings: Recordings from specific areas of CNS.  
Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Ear: Changes in cochlear structure or function.  
Nutritional and Gross Metabolic:Weight loss or decreased weight gain.  
- Pharmacology and Toxicology, Munksgaard International Pub., POB 2148, Copenhagen K Denmark, Vol/p/yr: 76,41, 1995
- Other Studies:, TDLo, Intraperitoneal, Rat, 9625. MG/KG, 7 D.  
Results:  
Liver: Other changes.  
Blood:Changes in serum composition (e.g.  
Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Multiple enzyme effects.  
- Toxicology Letters., Elsevier Science Pub. B.V., POB 211, 1000 AE, Amsterdam 1000



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AE Netherlands, Vol/p/yr: 14,169, 1982

Other Studies:, TDLo, Intraperitoneal, Rat, 8840. MG/KG, 45 D.

Results:

Liver: Other changes.

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:

Phosphatases.

Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Hepatic microsomal mixed oxidase (dealkylation, hydroxylation, etc.)

- JAT, Journal of Applied Toxicology., John Wiley & Sons Ltd., Baffins Lane, Chichester, W.Sussex PO19 1UD UK, Vol/p/yr: 8,81, 1988

Acute toxicity, TCLO, Inhalation, Human, 1000. PPM, 6 M.

Results:

Behavioral: Hallucinations, distorted perceptions.

- "U.S. Bureau of Mines Report of Investigation No. 2979," Patty, F.A., and W.P. Yant, 1929 Volume, Vol/p/yr: 2979,-, 1929

Acute toxicity, LC50, Inhalation, Rat, 103.0 GM/M3, 4 H.

Results:

Behavioral: Change in motor activity (specific assay).

Behavioral: Alteration of classical conditioning.

- Gigiena Truda i Professional'nye Zabolevaniya.(Labor Hygiene and Occupational Disease), V/O Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 32(10),23, 1988

Acute toxicity, LCLO, Inhalation, Mouse, 59.00 GM/M3, 41 M.

Results:

Behavioral: Convulsions or effect on seizure threshold.

- Biochemische Zeitschrift., For publisher information, see EJBCAI, Berlin Germany, Vol/p/yr: 115,235, 1921

Acute toxicity, LD50, Intravenous, Mouse, 222.0 MG/KG.

Results:

Brain and Coverings: Changes in circulation (hemorrhage,thrombosis, etc.

Lungs, Thorax, or Respiration:Dyspnea.

Gastrointestinal:Nausea or vomiting.

- Journal of Pharmaceutical Sciences., American Pharmaceutical Assoc., 2215 Constitution Ave., NW, Washington, DC 20037, Vol/p/yr: 67,566, 1978

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
142-82-5	Heptane	n.a.	n.a.	n.a.	n.a.
124-38-9	Carbon dioxide	n.a.	n.a.	n.a.	n.a.
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene	n.a.	3	n.a.	n.a.
67-63-0	Isopropyl alcohol	n.a.	3	A4	n.a.
67-64-1	Acetone	n.a.	n.a.	A4	n.a.



## Section 12. Ecological Information

### 12.1 Toxicity:

CAS# 142-82-5:

Effective concentration to 50% of test organisms., Water Flea (*Daphnia magna*), 82500. UG/L, 96 H, Intoxication., Water temperature: 28.00 C (82.4 F) C.

Results:

No observed effect.

- Acute Toxicity of Petroleum Products, Crude Oil and Oil Refinery Effluent on Plankton, Benthic Invertebrates and Fish, Das, P.K.M.K., and S.K. Konar, 1988

LC50, Water Flea (*Daphnia magna*), 50.00 MG/L, 24 H, Intoxication., Water temperature: 20.00 C (68.0 F) - 22.00 C (71.6 F) C, pH: 7.70, Hardness: 16.00 dH.

Results:

No observed effect.

- Results of the Damaging Effect of Water Pollutants on *Daphnia magna* (Befunde der Schadwirkung Wassergefährdender Stoffe Gegen *Daphnia magna*), Bringmann, G., and R. Kuhn, 1977

LC50, Western Mosquitofish (*Gambusia affinis*), adult(s), 4924000. UG/L, 48 H, Mortality, Water temperature: 20.00 C (68.0 F) - 27.00 C (80.6 F) C, pH: 8.90.

Results:

Age Effects.

- Toxicity to *Gambusia affinis* of Certain Pure Chemicals in Turbid Waters, Wallen, I.E., W.C. Greer, and R. Lasater, 1957

LC50, Western Mosquitofish (*Gambusia affinis*), adult(s), 4924000. UG/L, 24 H, Mortality, Water temperature: 20.00 C (68.0 F) - 27.00 C (80.6 F) C, pH: 8.90.

Results:

Age Effects.

- Toxicity to *Gambusia affinis* of Certain Pure Chemicals in Turbid Waters, Wallen, I.E., W.C. Greer, and R. Lasater, 1957

Not reported., Western Mosquitofish (*Gambusia affinis*), adult(s), 5600000. UG/L, 96 H, Mortality, Water temperature: 20.00 C (68.0 F) - 27.00 C (80.6 F) C, pH: 8.90.

Results:

No observed effect.

- Toxicity to *Gambusia affinis* of Certain Pure Chemicals in Turbid Waters, Wallen, I.E., W.C. Greer, and R. Lasater, 1957

LC50, Western Mosquitofish (*Gambusia affinis*), adult(s), 4924000. UG/L, 96 H, Mortality, Water temperature: 20.00 C (68.0 F) - 27.00 C (80.6 F) C, pH: 8.90.

Results:

No observed effect.

- Toxicity to *Gambusia affinis* of Certain Pure Chemicals in Turbid Waters, Wallen, I.E., W.C. Greer, and R. Lasater, 1957

Not reported., Coho Salmon, Silver Salmon (*Oncorhynchus kisutch*), 100000. UG/L, 96 H, Mortality, Water temperature: 8.00 C (46.4 F) C, pH: 8.10.

Results:

Age Effects.

- Effects of Some Components of Crude Oil on Young Coho Salmon, Morrow, J.E., R.L. Gritz, and M.P. Kirton, 1975



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LC50, Mozambique Tilapia (*Oreochromis mossambicus*), 375000. UG/L, 96 H, Mortality, Water temperature: 27.80 C (82.0 F) C.

Results:

No observed effect.

- Acute Toxicity of n-Heptane and n-Hexane on Worm and Fish, Ghatak, D.B., M.M. Hossain, and S.K. Konar, 1988

LC50, Midge Family (Chironomidae), larva(e), 838000. UG/L, 96 H, Intoxication,, Water temperature: 28.00 C (82.4 F) C, pH: 7.00, Hardness: 260.00 MG/L.

Results:

No observed effect.

- Acute Toxicity of Petroleum Products, Crude Oil and Oil Refinery Effluent on Plankton, Benthic Invertebrates and Fish, Das, P.K.M.K., and S.K. Konar, 1988

Effective concentration to 50% of test organisms., Algae (Algae), 1500. UG/L, 8 H, Physiology.

Results:

No observed effect.

- Gulf Underwater Flare Experiment (GUFEX): Effects of Hydrocarbons on Phytoplankton, Brooks, J.M., G.A. Fryxell, D.F. Reid, and W.M. Sackett, 1977

Not reported., Pacific Oyster (*Crassostrea gigas*), egg(s), 3400000. UG/L, 48 H, Mortality, Water temperature: 20.00 C (68.0 F) - 21.50 C (70.7 F) C.

Results:

No observed effect.

- The Effect of Alaskan Crude Oil and Selected Hydrocarbon Compounds on Embryonic Development of the Pacific Oyster, *Crassostrea gigas*, Legore, R.S., 1974

LC50, Oligochaete (*Branchiura sowerbyi*), 2500000. UG/L, 96 H, Mortality, Water temperature: 27.80 C (82.0 F) C.

Results:

No observed effect.

- Acute Toxicity of n-Heptane and n-Hexane on Worm and Fish, Ghatak, D.B., M.M. Hossain, and S.K. Konar, 1988

Effective concentration to 50% of test organisms., Snail (*Viviparus bengalensis*), 472000. UG/L, 96 H, Intoxication,, Water temperature: 28.00 C (82.4 F) C.

Results:

No observed effect.

- Acute Toxicity of Petroleum Products, Crude Oil and Oil Refinery Effluent on Plankton, Benthic Invertebrates and Fish, Das, P.K.M.K., and S.K. Konar, 1988

Lethal concentration to 0% of test organisms., Carp (*Leuciscus idus ssp. melanotus*), 220.0 MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

LC50, Carp (*Leuciscus idus ssp. melanotus*), 270.0 MG/L, 48 H, Mortality.

Results:

No observed effect.





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- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

Lethal concentration to 100% of test organisms., Carp (*Leuciscus idus* ssp. *melanotus*), 350.0 MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

Lethal concentration to 0% of test organisms., Carp (*Leuciscus idus* ssp. *melanotus*), 1370. MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

LC50, Carp (*Leuciscus idus* ssp. *melanotus*), 2940. MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

Lethal concentration to 100% of test organisms., Carp (*Leuciscus idus* ssp. *melanotus*), 3420. MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

CAS# 67-63-0:

LC50, Fathead Minnow (*Pimephales promelas*), juvenile(s), 11830000. UG/L, 1 H, Mortality, Water temperature: 18.00 C (64.4 F) - 22.00 C (71.6 F) C.

Results:

No observed effect.

- Acute Toxicity of Selected Organic Compounds to Fathead Minnows, Mattson, V.R., J.W. Arthur, and C.T. Walbridge, 1976

LC50, Fathead Minnow (*Pimephales promelas*), juvenile(s), 11160000. UG/L, 24 H, Mortality, Water temperature: 18.00 C (64.4 F) - 22.00 C (71.6 F) C.

Results:

No observed effect.

- Acute Toxicity of Selected Organic Compounds to Fathead Minnows, Mattson, V.R., J.W. Arthur, and C.T. Walbridge, 1976

LC50, Fathead Minnow (*Pimephales promelas*), juvenile(s), 11130000. UG/L, 48 H, Mortality, Water temperature: 18.00 C (64.4 F) - 22.00 C (71.6 F) C.

Results:



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### Age Effects.

- Acute Toxicity of Selected Organic Compounds to Fathead Minnows, Mattson, V.R., J.W. Arthur, and C.T. Walbridge, 1976

LC50, Fathead Minnow (*Pimephales promelas*), juvenile(s), 11130000. UG/L, 72 H, Mortality, Water temperature: 18.00 C (64.4 F) - 22.00 C (71.6 F) C.

### Results:

#### Age Effects.

- Acute Toxicity of Selected Organic Compounds to Fathead Minnows, Mattson, V.R., J.W. Arthur, and C.T. Walbridge, 1976

LC50, Fathead Minnow (*Pimephales promelas*), juvenile(s), 11130000. UG/L, 96 H, Mortality, Water temperature: 18.00 C (64.4 F) - 22.00 C (71.6 F) C.

### Results:

#### Age Effects.

- Acute Toxicity of Selected Organic Compounds to Fathead Minnows, Mattson, V.R., J.W. Arthur, and C.T. Walbridge, 1976

LC50, Fathead Minnow (*Pimephales promelas*), 10400000. UG/L, 96 H, Mortality, Water temperature: 24.60 C (76.3 F) C, pH: 7.10, Hardness: 52.50 MG/L.

### Results:

Affected fish lost equilibrium prior to death.

- Acute Toxicities of Organic Chemicals to Fathead Minnows (*Pimephales promelas*), Vol. 1, Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott, 1984

LC50, Fathead Minnow (*Pimephales promelas*), 6550000. UG/L, 96 H, Mortality, Water temperature: 24.60 C (76.3 F) C, pH: 7.90, Hardness: 44.00 MG/L.

### Results:

Affected fish lost equilibrium prior to death.

- Acute Toxicities of Organic Chemicals to Fathead Minnows (*Pimephales promelas*), Vol. 1, Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott, 1984

LC50, Fathead Minnow (*Pimephales promelas*), 9640000. UG/L, 96 H, Mortality, Water temperature: 24.40 C (75.9 F) C, pH: 7.80, Hardness: 48.30 MG/L.

### Results:

Affected fish lost equilibrium prior to death.

- Acute Toxicities of Organic Chemicals to Fathead Minnows (*Pimephales promelas*), Vol. 1, Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott, 1984

LC50, Fathead Minnow (*Pimephales promelas*), 10600000. UG/L, 24 H, Mortality, Water temperature: 24.00 C (75.2 F) - 25.30 C (77.5 F) C, pH: 7.20, Hardness: 52.70 MG/L.

### Results:

No observed effect.

- Estimates of "No Effect" Concentrations of Selected Pesticides in Freshwater Organisms, Call, D.J., L.T. Brooke, and N. Ahmad, 1981

LC50, Fathead Minnow (*Pimephales promelas*), 10400000. UG/L, 48 H, Mortality, Water temperature: 24.00 C (75.2 F) - 25.30 C (77.5 F) C, pH: 7.20, Hardness: 52.70 MG/L.

### Results:

No observed effect.

- Estimates of "No Effect" Concentrations of Selected Pesticides in Freshwater Organisms, Call, D.J., L.T. Brooke, and N. Ahmad, 1981



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Effective concentration to 50% of test organisms., Fathead Minnow (*Pimephales promelas*), 9380000. UG/L, 24 H, Behavior, Water temperature: 24.00 C (75.2 F) - 25.30 C (77.5 F) C, pH: 7.20, Hardness: 52.70 MG/L.

Results:

No observed effect.

- Estimates of "No Effect" Concentrations of Selected Pesticides in Freshwater Organisms, Call, D.J., L.T. Brooke, and N. Ahmad, 1981

Effective concentration to 50% of test organisms., Fathead Minnow (*Pimephales promelas*), 10000000. UG/L, 48 H, Behavior, Water temperature: 24.00 C (75.2 F) - 25.30 C (77.5 F) C, pH: 7.20, Hardness: 52.70 MG/L.

Results:

No observed effect.

- Estimates of "No Effect" Concentrations of Selected Pesticides in Freshwater Organisms, Call, D.J., L.T. Brooke, and N. Ahmad, 1981

LC50, Bluegill (*Lepomis macrochirus*), 1400000. UG/L, 24 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.

- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

LC50, Bluegill (*Lepomis macrochirus*), 1400000. UG/L, 48 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.

- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

LC50, Bluegill (*Lepomis macrochirus*), 1400000. UG/L, 72 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.

- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

LC50, Bluegill (*Lepomis macrochirus*), 1400000. UG/L, 96 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.

- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

Lethal concentration to 0% of test organisms., Bluegill (*Lepomis macrochirus*), fingerling, 10000000. UG/L, 96 H, Mortality, Water temperature: 19.50 C (67.1 F) - 20.50 C (68.9 F) C.

Results:

No observed effect.

- Behavior of Organic Chemicals in the Aquatic Environment. Part II. - Behavior in Dilute Systems, Buzzell, J.C., Jr., R.H.F. Young, and D.W. Ryckman, 1968

Not reported., Rainbow Trout (*Oncorhynchus mykiss*), 4800000. UG/L, 2 - 24 H,



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Accumulation.

Results:

No observed effect.

- Estimates of "No Effect" Concentrations of Selected Pesticides in Freshwater Organisms, Call, D.J., L.T. Brooke, and N. Ahmad, 1981

Effective concentration to 50% of test organisms., Water Flea (Daphnia magna), 159000. UMOL/L, 24 H, Intoxication,.

Results:

No observed effect.

- Comparative Acute Toxicity of the First 50 Multicentre Evaluation of In Vitro Cytotoxicity Chemicals to Aquatic Non-vertebrates, Calleja, M.C., G. Persoone, and P. Geladi, 1994

Effective concentration to 50% of test organisms., Water Flea (Daphnia magna), neonate, 114.0 MMOL/L, 24 H, Intoxication,, Water temperature: 21.00 C (69.8 F) C, pH: 7.60.

Results:

No observed effect.

- A Comparison of the Toxicity of 50 Reference Chemicals to Freshly Isolated Rainbow Trout Hepatocytes and Daphnia magna, Lilius, H., B. Isomaa, and T. Holmstrom, 1994

LC50, Water Flea (Daphnia magna), 10000. MG/L, 24 H, Intoxication,, Water temperature: 20.00 C (68.0 F) - 22.00 C (71.6 F) C, pH: 7.70, Hardness: 16.00 dH.

Results:

No observed effect.

- Results of the Damaging Effect of Water Pollutants on Daphnia magna (Befunde der Schadwirkung Wassergefahrdender Stoffe Gegen Daphnia magna), Bringmann, G., and R. Kuhn, 1977

Lethal concentration to 0% of test organisms., Water Flea (Daphnia magna), 5000. MG/L, 24 H, Intoxication,, Water temperature: 20.00 C (68.0 F) - 22.00 C (71.6 F) C, pH: 7.70, Hardness: 16.00 dH.

Results:

No observed effect.

- Results of the Damaging Effect of Water Pollutants on Daphnia magna (Befunde der Schadwirkung Wassergefahrdender Stoffe Gegen Daphnia magna), Bringmann, G., and R. Kuhn, 1977

Effective concentration to 0% of test organisms., Water Flea (Daphnia magna), 5102. MG/L, 24 H, Behavior, pH: =8.00.

Results:

No observed effect.

- Results of Toxic Action of Water Pollutants on Daphnia magna Straus Tested by an Improved Standardized Procedure, Bringmann, G., and R. Kuehn, 1982

Effective concentration to 50% of test organisms., Water Flea (Daphnia magna), 9714. MG/L, 24 H, Behavior, pH: =8.00.

Results:

No observed effect.

- Results of Toxic Action of Water Pollutants on Daphnia magna Straus Tested by an Improved Standardized Procedure, Bringmann, G., and R. Kuehn, 1982

Effective concentration to 100% of test organisms., Water Flea (Daphnia magna), 10000.



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MG/L, 24 H, Behavior, pH: =8.00.

Results:

No observed effect.

- Results of Toxic Action of Water Pollutants on Daphnia magna Straus Tested by an Improved Standardized Procedure, Bringmann, G., and R. Kuehn, 1982

Effective concentration to 50% of test organisms., Water Flea (Daphnia pulex), 174.27 MMOL/L, 24 H, Intoxication,, Water temperature: 20.00 C (68.0 F) C, pH: 7.60.

Results:

No observed effect.

- A Comparison of the Toxicity of 30 Reference Chemicals to Daphnia magna and Daphnia pulex, Lilius, H., T. Hastbacka, and B. Isomaa, 1995

LC50, Common Shrimp, Sand Shrimp (Crangon crangon), 1400000. UG/L, 48 H, Mortality.

Results:

No observed effect.

- Toxicity of Oil-Sinking Agents, Blackman, R.A.A., 1974

LC50, Common Shrimp, Sand Shrimp (Crangon crangon), 1150000. UG/L, 96 H, Mortality.

Results:

No observed effect.

- Toxicity of Oil-Sinking Agents, Blackman, R.A.A., 1974

LC50, Harlequinfish, Red Rasbora (Rasbora heteromorpha), 7100000. UG/L, 24 H, Mortality, Water temperature: 20.00 C (68.0 F) C, pH: 8.10, Hardness: 20.00 MG/L.

Results:

Affected fish swam at or near surface.

Affected fish lost equilibrium prior to death.

- Acute Toxicity of 102 Pesticides and Miscellaneous Substances to Fish, Tooby, T.E., P.A. Hursey, and J.S. Alabaster, 1975

LC50, Harlequinfish, Red Rasbora (Rasbora heteromorpha), 4900000. UG/L, 48 H, Mortality, Water temperature: 20.00 C (68.0 F) C, pH: 8.10, Hardness: 20.00 MG/L.

Results:

Affected fish lost equilibrium prior to death.

- Acute Toxicity of 102 Pesticides and Miscellaneous Substances to Fish, Tooby, T.E., P.A. Hursey, and J.S. Alabaster, 1975

LC50, Harlequinfish, Red Rasbora (Rasbora heteromorpha), 4200000. UG/L, 96 H, Mortality, Water temperature: 20.00 C (68.0 F) C, pH: 8.10, Hardness: 20.00 MG/L.

Results:

Affected fish stopped schooling behavior.

Affected fish became hyperactive.

No loss of equilibrium observed.

- Acute Toxicity of 102 Pesticides and Miscellaneous Substances to Fish, Tooby, T.E., P.A. Hursey, and J.S. Alabaster, 1975

LC50, Western Mosquitofish (Gambusia affinis), 1400000. UG/L, 24 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.



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- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

LC50, Western Mosquitofish (*Gambusia affinis*), 1400000. UG/L, 48 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.

- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

LC50, Western Mosquitofish (*Gambusia affinis*), 1400000. UG/L, 72 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.

- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

LC50, Western Mosquitofish (*Gambusia affinis*), 1400000. UG/L, 96 H, Mortality, Water temperature: 22.00 C (71.6 F) C.

Results:

No observed effect.

- Toxicity of CS-2 Decontamination Products, Wolverton, B.C., D.D. Harrison, and R.C. Voight, 1970

Lethal concentration to 0% of test organisms., Creek Chub (*Semotilus atromaculatus*), 900000. UG/L, 24 H, Mortality, Water temperature: 15.00 C (59.0 F) - 21.00 C (69.8 F) C, pH: 8.30, Hardness: 98.00 MG/L.

Results:

No observed effect.

- Appraisal of a Chemical Waste Problem by Fish Toxicity Tests, Gillette, L.A., D.L. Miller, and H.E. Redman, 1952

Lethal concentration to 100% of test organisms., Creek Chub (*Semotilus atromaculatus*), 1100000. UG/L, 24 H, Mortality, Water temperature: 15.00 C (59.0 F) - 21.00 C (69.8 F) C, pH: 8.30, Hardness: 98.00 MG/L.

Results:

No observed effect.

- Appraisal of a Chemical Waste Problem by Fish Toxicity Tests, Gillette, L.A., D.L. Miller, and H.E. Redman, 1952

LC50, Goldfish (*Carassius auratus*), 5000000. UG/L, 24 H, Mortality, Water temperature: 20.00 C (68.0 F) C, pH: 7.00.

Results:

No observed effect.

- The Acute Toxicity of Some Petrochemicals to Goldfish, Bridie, A.L., C.J.M. Wolff, and M. Winter, 1979

LC50, Yellow Fever Mosquito (*Aedes aegypti*), larva(e), 3.200 % V/V, 4 H, Mortality, Water temperature: 22.00 C (71.6 F) - 24.00 C (75.2 F) C.

Results:

Age Effects.

- Relative Toxicity of Organic Solvents to *Aedes aegypti* Larvae, Kramer, V.C., D.J. Schnell, and K.W. Nickerson, 1983

Not reported., Cryptomonad (*Chilomonas paramecium*), 104000. UG/L, 48 H, Population, Water temperature: 20.00 C (68.0 F) C, pH: 6.90.

Results:

No observed effect.

- Determination of the Biological Effect From Water Pollutants to Protozoa. III. Saprozoic Flagellates (Bestimmung der Biologischen Schadwirkung Wassergefahrdender Stoffe Gegen Protozoen III. Saprozoische Flagellaten), Bringmann, G., R. Kuhn, and A. Winter, 1980

Not reported., Cryptomonad (*Chilomonas paramecium*), 104000. UG/L, Population.

Results:

Affected fish stopped schooling behavior.

Affected fish became hyperactive.

No loss of equilibrium observed.

- Comparison of the Effect of Toxic Substances on the Flagellate Organisms Such as Ciliates and the Holozoic Bacteria-Devouring Organisms Such as Saprozoic Protozoans (Vergleich der Wirkung von Schadstoffen auf Flagellate, Bringmann, G., and R. Kuhn, 1981

Not reported., Green Algae (*Chlorella* sp.), 79000. UG/L, 11 - 20 D, Population.

Results:

No observed effect.

- Naturally Occurring Organic Compounds and Algal Growth in a Eutrophic Lake, Adams, V.D., R.R. Renk, P.A. Cowan, and D.B. Porcella, 1975

Not reported., Green Algae (*Chlamydomonas reinhardtii*), 79000. UG/L, 11 - 17 D, Population.

Results:

No observed effect.

- Naturally Occurring Organic Compounds and Algal Growth in a Eutrophic Lake, Adams, V.D., R.R. Renk, P.A. Cowan, and D.B. Porcella, 1975

LC50, Rotifer (*Brachionus plicatilis*), Post-hatch, 519000. UMOL/L, 24 H, Mortality, Water temperature: 25.00 C (77.0 F) C.

Results:

Affected fish lost equilibrium prior to death.

- Cyst-Based Toxicity Tests. IV. The Potential of Ecotoxicological Tests for the Prediction of Acute Toxicity in Man as Evaluated on the First Ten Chemicals of the MEIC Programme, Calleja, M.C., and G. Persoone, 1992

LC50, Brine Shrimp (*Artemia salina*), nauplii, 10000000. UG/L, 24 H, Mortality, Water temperature: 24.00 C (75.2 F) C.

Results:

No observed effect.

- Brine Shrimp Bioassay and Seawater BOD of Petrochemicals, Price, K.S., G.T. Waggy, and R.A. Conway, 1974

LC50, Brine Shrimp (*Artemia salina*), 278000. UMOL/L, 24 H, Mortality.

Results:

No observed effect.

- Comparative Acute Toxicity of the First 50 Multicentre Evaluation of In Vitro Cytotoxicity Chemicals to Aquatic Non-vertebrates, Calleja, M.C., G. Persoone, and P. Geladi, 1994



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LC50, Brine Shrimp (*Artemia salina*), larva(e), 278000. UMOL/L, 24 H, Mortality.

Results:

Affected fish lost equilibrium prior to death.

- Cyst-Based Toxicity Tests. IV. The Potential of Ecotoxicological Tests for the Prediction of Acute Toxicity in Man as Evaluated on the First Ten Chemicals of the MEIC Programme, Calleja, M.C., and G. Persoone, 1992

Not reported., Algae (Algae), 79000. UG/L, 11 - 14 D, Population.

Results:

No observed effect.

- Naturally Occurring Organic Compounds and Algal Growth in a Eutrophic Lake, Adams, V.D., R.R. Renk, P.A. Cowan, and D.B. Porcella, 1975

Inhibition concentration to 50% of test organisms, Ciliate (*Tetrahymena pyriformis*), 97.06 MMOL/L, 2 D, Population.

Results:

No observed effect.

- Structure-Toxicity Relationships for Unsaturated Alcohols to *Tetrahymena pyriformis*: C5 and C6 Analogs and Primary Propargylic Alcohols, Schultz, T.W., and M. Tichy, 1993

Not reported., Ciliate (*Tetrahymena pyriformis*), 1.000 M, 1 M, Intoxication,.

Results:

Age Effects.

- Computerized In Vitro Test for Chemical Toxicity Based on *Tetrahymena* Swimming Patterns, Noever, D.A., H.C. Matsos, R.J. Cronise, L.L. Looger, R.A. Relwani, and J.U. Johnson, 1994

Not reported., Green Algae (*Scenedesmus quadricauda*), 1800000. UG/L, Population, Water temperature: 27.00 C (80.6 F) C, pH: 7.00.

Results:

No observed effect.

- Limiting Values for the Damaging Action of Water Pollutants to Bacteria (*Pseudomonas putida*) and Green Algae (*Scenedesmus quadricauda*) in the Cell Multiplication Inhibition Test, Bringmann, G., and R. Kuhn, 1977

Not reported., Green Algae (*Scenedesmus quadricauda*), 1800000. UG/L, 7 D, Population, Water temperature: 27.00 C (80.6 F) C.

Results:

Affected fish swam at or near surface.

Affected fish lost equilibrium prior to death.

- Comparison of the Toxicity Thresholds of Water Pollutants to Bacteria, Algae, and Protozoa in the Cell Multiplication Inhibition Test, Bringmann, G., and R. Kuhn, 1980

Not reported., Green Algae (*Scenedesmus quadricauda*), 1800000. UG/L, 8 D, Population, Water temperature: 27.00 C (80.6 F) C.

Results:

Affected fish stopped schooling behavior.

Affected fish swam at or near surface.

- Testing of Substances for Their Toxicity Threshold: Model Organisms *Microcystis* (*Diplocystis*) *aeruginosa* and *Scenedesmus quadricauda*, Bringmann, G., and R. Kuhn, 1978



Not reported., Green Algae (*Scenedesmus quadricauda*), 1800000. UG/L, Population.

Results:

No observed effect.

- Comparison of Toxic Limiting Concentrations of Water Contaminants Toward Bacteria, Algae and Protozoa in the Cell-Growth Inhibition Test (Vergleich der Toxischen Grenzkonzentrationen Wassergefährdender Stoffe Gegen Bakte, Bringmann, G., and R. Kuhn, 1979

Effective concentration to {0} % of test organisms, Green Algae (*Scenedesmus quadricauda*), 1800000. UG/L, Population.

Results:

No observed effect.

- Limiting Values for the Noxious Effects of Water Pollutant Material to Blue Algae (*Microcystis aeruginosa*) and Green Algae (*Scenedesmus quadricauda*) in Cell Propagation Inhibition Tests (Grenzwerte der Schadwirkung Wasse, Bringmann, G., and R. Kuhn, 1978

LC50, Fairy Shrimp (*Streptocephalus proboscideus*), 193000. UMOL/L, 24 H, Mortality.

Results:

No observed effect.

- Comparative Acute Toxicity of the First 50 Multicentre Evaluation of In Vitro Cytotoxicity Chemicals to Aquatic Non-vertebrates, Calleja, M.C., G. Persoone, and P. Geladi, 1994

LC50, Fairy Shrimp (*Streptocephalus proboscideus*), larva(e), 193000. UMOL/L, 24 H, Mortality, Water temperature: 25.00 C (77.0 F) C.

Results:

No observed effect.

- Cyst-Based Toxicity Tests. IV. The Potential of Ecotoxicological Tests for the Prediction of Acute Toxicity in Man as Evaluated on the First Ten Chemicals of the MEIC Programme, Calleja, M.C., and G. Persoone, 1992

LC50, Midge (*Chironomus riparius*), larva(e), 12500000. UG/L, 48 H, Mortality, Water temperature: 21.00 C (69.8 F) C, pH: 8.20, Hardness: 210.00 MG/L.

Results:

No observed effect.

- A QSAR for Base-Line Toxicity to the Midge *Chironomus riparius*, Roghair, C.J., A. Buijze, E.S.E. Yedema, and J.L.M. Hermens, 1994

Effective concentration to {0} % of test organisms, Midge (*Chironomus riparius*), larva(e), 3000000. UG/L, 48 H, Mortality, Water temperature: 21.00 C (69.8 F) C, pH: 8.20, Hardness: 210.00 MG/L.

Results:

No observed effect.

- A QSAR for Base-Line Toxicity to the Midge *Chironomus riparius*, Roghair, C.J., A. Buijze, E.S.E. Yedema, and J.L.M. Hermens, 1994

Effective concentration to {0} % of test organisms, Midge (*Chironomus riparius*), larva(e), 18000000. UG/L, 48 H, Mortality, Water temperature: 21.00 C (69.8 F) C, pH: 8.20, Hardness: 210.00 MG/L.

Results:

No observed effect.

- A QSAR for Base-Line Toxicity to the Midge *Chironomus riparius*, Roghair, C.J., A. Buijze, E.S.E. Yedema, and J.L.M. Hermens, 1994



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Not reported., Flagellate Euglenoid (*Entosiphon sulcatum*), 4930000. UG/L, 72 H, Population, Water temperature: 25.00 C (77.0 F) C.

Results:

Affected fish lost equilibrium prior to death.

- Comparison of the Toxicity Thresholds of Water Pollutants to Bacteria, Algae, and Protozoa in the Cell Multiplication Inhibition Test, Bringmann, G., and R. Kuhn, 1980

Not reported., Flagellate Euglenoid (*Entosiphon sulcatum*), 4930000. UG/L, 72 H, Population, Water temperature: 25.00 C (77.0 F) C, pH: 6.90.

Results:

No observed effect.

- Investigation of Biological Harmful Effects of Chemical Substances Which are Classified as Dangerous for Water on Protozoa, Bringmann, G., 1978

Not reported., Flagellate Euglenoid (*Entosiphon sulcatum*), 4930000. UG/L, Population.

Results:

No observed effect.

- Comparison of the Effect of Toxic Substances on the Flagellate Organisms Such as Ciliates and the Holozoic Bacteria-Devouring Organisms Such as Saprozoic Protozoans (Vergleich der Wirkung von Schadstoffen auf Flagellate, Bringmann, G., and R. Kuhn, 1981

Not reported., Flagellate Euglenoid (*Entosiphon sulcatum*), 4930000. UG/L, Population.

Results:

No observed effect.

- Comparison of Toxic Limiting Concentrations of Water Contaminants Toward Bacteria, Algae and Protozoa in the Cell-Growth Inhibition Test (Vergleich der Toxischen Grenzkonzentrationen Wassergefahrdender Stoffe Gegen Bakte, Bringmann, G., and R. Kuhn, 1979

Not reported., Blue-Green Algae (*Anacystis aeruginosa*), 1000000. UG/L, 8 D, Population, Water temperature: 27.00 C (80.6 F) C.

Results:

Age Effects.

- Testing of Substances for Their Toxicity Threshold: Model Organisms *Microcystis* (*Diplocystis*) *aeruginosa* and *Scenedesmus quadricauda*, Bringmann, G., and R. Kuhn, 1978

LC50, Rotifer (*Brachionus calyciflorus*), 476000. UMOL/L, 24 H, Mortality.

Results:

No observed effect.

- Comparative Acute Toxicity of the First 50 Multicentre Evaluation of In Vitro Cytotoxicity Chemicals to Aquatic Non-vertebrates, Calleja, M.C., G. Persoone, and P. Geladi, 1994

LC50, Rotifer (*Brachionus calyciflorus*), Post-hatch, 476000. UMOL/L, 24 H, Mortality, Water temperature: 25.00 C (77.0 F) C.

Results:

Affected fish lost equilibrium prior to death.

- Cyst-Based Toxicity Tests. IV. The Potential of Ecotoxicological Tests for the Prediction of Acute Toxicity in Man as Evaluated on the First Ten Chemicals of the MEIC Programme, Calleja, M.C., and G. Persoone, 1992



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Effective concentration to 50% of test organisms., Inflated Duckweed (*Lemna gibba*), 75.54 MMOL/L, 7 D, Population, Water temperature: 27.50 C (81.5 F) C.

Results:

Age Effects.

- Physiological Effects of Ethylene Glycol-Induced Cribriform Frond Structure in *Lemna gibba*, Thomas, D.A., 1998

Effective concentration to 10% of test organisms., Inflated Duckweed (*Lemna gibba*), 12.44 MMOL/L, 7 D, Population, Water temperature: 27.50 C (81.5 F) C.

Results:

Age Effects.

- Physiological Effects of Ethylene Glycol-Induced Cribriform Frond Structure in *Lemna gibba*, Thomas, D.A., 1998

Not reported., Iberian Ribbed Newt (*Pleurodeles waltl*), larva(e), 1500. UG/L, 12 D, Genetics, Water temperature: 20.00 C (68.0 F) C.

Results:

No observed effect.

- Evaluation of the Genotoxicity of N-Nitrosoatrazine, N-Nitrosodiethanolamine and Their Precursors In Vivo Using the Newt Micronucleus Test, L'Haridon, J., M. Fernandez, V. Ferrier, and J. Bellan, 1993

Effective concentration to {0} % of test organisms, Sand Goby (*Pomatoschistus minutus*), juvenile(s), 20.00 UG/L, 8 M, Mortality, Water temperature: 6.40 C (43.5 F) - 11.50 C (52.7 F) C.

Results:

Affected fish stopped schooling behavior.

Affected fish became hyperactive.

No loss of equilibrium observed.

- Bioindicators and Reproductive Effects of Prolonged 17beta-Oestradiol Exposure in a Marine Fish, the Sand Goby (*Pomatoschistus minutus*), Robinson, C.D., E. Brown, J.A. Craft, I.M. Davies, C. Megginson, C. Miller, and C.F. Moffat, 2007

Effective concentration to {0} % of test organisms, Sand Goby (*Pomatoschistus minutus*), juvenile(s), 20.00 UG/L, 8 M, Biochemistry, Water temperature: 6.40 C (43.5 F) - 11.50 C (52.7 F) C.

Results:

Affected fish stopped schooling behavior.

Affected fish became hypoactive.

Affected fish swam at or near bottom.

No loss of equilibrium observed.

- Bioindicators and Reproductive Effects of Prolonged 17beta-Oestradiol Exposure in a Marine Fish, the Sand Goby (*Pomatoschistus minutus*), Robinson, C.D., E. Brown, J.A. Craft, I.M. Davies, C. Megginson, C. Miller, and C.F. Moffat, 2007

Effective concentration to {0} % of test organisms, Sand Goby (*Pomatoschistus minutus*), juvenile(s), 20.00 UG/L, 8 M, Development, Water temperature: 6.40 C (43.5 F) - 11.50 C (52.7 F) C.

Results:

Age Effects.

- Bioindicators and Reproductive Effects of Prolonged 17beta-Oestradiol Exposure in a Marine Fish, the Sand Goby (*Pomatoschistus minutus*), Robinson, C.D., E. Brown, J.A. Craft, I.M. Davies, C. Megginson, C. Miller, and C.F. Moffat, 2007

Effective concentration to {0} % of test organisms, Sand Goby (*Pomatoschistus minutus*), juvenile(s), 20.00 UG/L, 8 M, Genetics, Water temperature: 6.40 C (43.5 F) - 11.50 C (52.7 F) C.

Results:

Age Effects.

- Bioindicators and Reproductive Effects of Prolonged 17beta-Oestradiol Exposure in a Marine Fish, the Sand Goby (*Pomatoschistus minutus*), Robinson, C.D., E. Brown, J.A. Craft, I.M. Davies, C. Megginson, C. Miller, and C.F. Moffat, 2007

Not reported., Sand Goby (*Pomatoschistus minutus*), juvenile(s), 20.00 UG/L, 8 M, Reproduction, Water temperature: 6.40 C (43.5 F) - 11.50 C (52.7 F) C.

Results:

Loss of equilibrium.

- Bioindicators and Reproductive Effects of Prolonged 17beta-Oestradiol Exposure in a Marine Fish, the Sand Goby (*Pomatoschistus minutus*), Robinson, C.D., E. Brown, J.A. Craft, I.M. Davies, C. Megginson, C. Miller, and C.F. Moffat, 2007

Not reported., White Sturgeon (*Acipenser transmontanus*), 1000. - 10000. UG/L, 96 H, Mortality, Water temperature: 15.00 C (59.0 F) C, pH: 7.90, Hardness: <=34.10 MG/L.

Results:

No observed effect.

- Acute Toxicity Testing with Juvenile White Sturgeon (*Acipenser transmontanus*), Bennett, W.R., and A.P. Farrell, 1998

Not reported., Blue-Green Algae (*Microcystis aeruginosa*), 1000000. UG/L, 8 D, Population, pH: 7.00.

Results:

No observed effect.

- Determination of the Biologically Harmful Effect of Water Pollutants by Means of the Retardation of Cell Proliferation of the Blue Algae *Microcystis*, Bringmann, G., 1975

Effective concentration to {0} % of test organisms, Blue-Green Algae (*Microcystis aeruginosa*), 1000000. UG/L, Population.

Results:

No observed effect.

- Limiting Values for the Noxious Effects of Water Pollutant Material to Blue Algae (*Microcystis aeruginosa*) and Green Algae (*Scenedesmus quadricauda*) in Cell Propagation Inhibition Tests (Grenzwerte der Schadwirkung Wasse, Bringmann, G., and R. Kuhn, 1978

LC50, Nematode (*Caenorhabditis elegans*), larva(e), 6.550 % V/V, 24 H, Mortality.

Results:

Age Effects.

- Toxicity of Short-Chain Alcohols to the Nematode *Caenorhabditis elegans*: A Comparison of Endpoints, Thompson, G., and D.I. De Pomerai, 2005

LC50, Nematode (*Caenorhabditis elegans*), larva(e), 6.700 % V/V, 24 H, Mortality.

Results:

No observed effect.

- Toxicity of Short-Chain Alcohols to the Nematode *Caenorhabditis elegans*: A Comparison of Endpoints, Thompson, G., and D.I. De Pomerai, 2005



# SAFETY DATA SHEET

## Low Odor Brake & Parts Clean

Effective concentration to 50% of test organisms., Green Algae (*Chlorella fusca* ssp. *vacuolata*), 0.190 UMOL/L, 24 H, Population, Water temperature: 28.00 C (82.4 F) C, pH: 6.90.

Results:

Loss of equilibrium.

- What Contributes to the Combined Effect of a Complex Mixture?, Altenburger, R., H. Walter, and M. Grote, 2004

Lethal concentration to 0% of test organisms., Carp (*Leuciscus idus* ssp. *melanotus*), 7020. MG/L, 48 H, Mortality.

Results:

Affected fish stopped schooling behavior.

Affected fish became hypoactive.

Affected fish swam at or near bottom.

No loss of equilibrium observed.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

LC50, Carp (*Leuciscus idus* ssp. *melanotus*), 8970. MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

Lethal concentration to 100% of test organisms., Carp (*Leuciscus idus* ssp. *melanotus*), 10920. MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

Lethal concentration to 0% of test organisms., Carp (*Leuciscus idus* ssp. *melanotus*), 8190. MG/L, 48 H, Mortality.

Results:

Affected fish stopped schooling behavior.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

LC50, Carp (*Leuciscus idus* ssp. *melanotus*), 9280. MG/L, 48 H, Mortality.

Results:

No observed effect.

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

Lethal concentration to 100% of test organisms., Carp (*Leuciscus idus* ssp. *melanotus*), 9750. MG/L, 48 H, Mortality.

Results:

No observed effect.



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## Low Odor Brake & Parts Clean

- Results of the Investigation of 200 Chemical Compounds for Acute Fish Toxicity with the Golden Orfe Test (Ergebnisse der Untersuchung von 200 Chemischen Verbindungen auf Akute Fischtoxizität mit dem Goldorfentest), Juhnke, I., and D. Luedemann, 1978

Effective concentration to {0} % of test organisms, Ciliate Protozoa (*Tetrahymena thermophila*), Stationary Growth Phase, 754.0 MG/L, 48 H, Population, Water temperature: 32.00 C (89.6 F) C.

Results:

No observed effect.

- A Case for the Inclusion of a Protozoan Test in Aquatic Toxicity Assessment Using *Tetrahymena*, Pauli, W., S. Berger, L. Jaskulka, and S. Schmitz, 1993

Effective concentration to 50% of test organisms., Ciliate Protozoa (*Tetrahymena thermophila*), Stationary Growth Phase, 8130. MG/L, 48 H, Population, Water temperature: 32.00 C (89.6 F) C.

Results:

No observed effect.

- A Case for the Inclusion of a Protozoan Test in Aquatic Toxicity Assessment Using *Tetrahymena*, Pauli, W., S. Berger, L. Jaskulka, and S. Schmitz, 1993

Effective concentration to 20% of test organisms., Ciliate Protozoa (*Tetrahymena thermophila*), Stationary Growth Phase, 3142. MG/L, 48 H, Population, Water temperature: 32.00 C (89.6 F) C.

Results:

No observed effect.

- A Case for the Inclusion of a Protozoan Test in Aquatic Toxicity Assessment Using *Tetrahymena*, Pauli, W., S. Berger, L. Jaskulka, and S. Schmitz, 1993

Effective concentration to 0% of test organisms., Ciliate Protozoa (*Tetrahymena thermophila*), Exponential Growth Phase, 250000. UG/L, 90 M, Avoidance, Water temperature: 32.00 C (89.6 F) C.

Results:

No observed effect.

- Chemosensory Responses of Ciliates: A Sensitive End Point in Xenobiotic Hazard Assessment, Pauli, W., S. Berger, S. Schmitz, and L. Jaskulka, 1994

Effective concentration to 10% of test organisms., Ciliate Protozoa (*Tetrahymena thermophila*), Exponential Growth Phase, 470000. UG/L, 90 M, Avoidance, Water temperature: 32.00 C (89.6 F) C.

Results:

No observed effect.

- Chemosensory Responses of Ciliates: A Sensitive End Point in Xenobiotic Hazard Assessment, Pauli, W., S. Berger, S. Schmitz, and L. Jaskulka, 1994

Effective concentration to 20% of test organisms., Ciliate Protozoa (*Tetrahymena thermophila*), Stationary Growth Phase, 4595. MG/L, 48 H, Population, Water temperature: 32.00 C (89.6 F) C.

Results:

No observed effect.

- A Case for the Inclusion of a Protozoan Test in Aquatic Toxicity Assessment Using *Tetrahymena*, Pauli, W., S. Berger, L. Jaskulka, and S. Schmitz, 1993

Effective concentration to {0} % of test organisms, Ciliate Protozoa (*Tetrahymena*

thermophila), 754.0 MG/L, 48 H, Population.

Results:

No observed effect.

- Validation of Toxicological Endpoints with Tetrahymena. Membrane Functions, Chemotaxis, Cell Rotation in Electric Fields (Validierung Toxikologischer Prüfparameter an Tetrahymena: Membranfunktionen, Chemotaxis, Rotation, Pauli, W., S. Berger, S. Schmitz, L. Jaskulka, and K. Stadlander, 1993

Effective concentration to 10% of test organisms., Ciliate Protozoa (Tetrahymena thermophila), 1830. MG/L, 48 H, Population.

Results:

No observed effect.

- Validation of Toxicological Endpoints with Tetrahymena. Membrane Functions, Chemotaxis, Cell Rotation in Electric Fields (Validierung Toxikologischer Prüfparameter an Tetrahymena: Membranfunktionen, Chemotaxis, Rotation, Pauli, W., S. Berger, S. Schmitz, L. Jaskulka, and K. Stadlander, 1993

Effective concentration to 20% of test organisms., Ciliate Protozoa (Tetrahymena thermophila), 4595. MG/L, 48 H, Population.

Results:

No observed effect.

- Validation of Toxicological Endpoints with Tetrahymena. Membrane Functions, Chemotaxis, Cell Rotation in Electric Fields (Validierung Toxikologischer Prüfparameter an Tetrahymena: Membranfunktionen, Chemotaxis, Rotation, Pauli, W., S. Berger, S. Schmitz, L. Jaskulka, and K. Stadlander, 1993

Effective concentration to 50% of test organisms., Ciliate Protozoa (Tetrahymena thermophila), 8130. MG/L, 48 H, Population.

Results:

No observed effect.

- Validation of Toxicological Endpoints with Tetrahymena. Membrane Functions, Chemotaxis, Cell Rotation in Electric Fields (Validierung Toxikologischer Prüfparameter an Tetrahymena: Membranfunktionen, Chemotaxis, Rotation, Pauli, W., S. Berger, S. Schmitz, L. Jaskulka, and K. Stadlander, 1993

Effective concentration to 10% of test organisms., Ciliate Protozoa (Tetrahymena thermophila), 1200. MG/L, 48 H, Population.

Results:

No observed effect.

- Validation of Toxicological Endpoints with Tetrahymena. Membrane Functions, Chemotaxis, Cell Rotation in Electric Fields (Validierung Toxikologischer Prüfparameter an Tetrahymena: Membranfunktionen, Chemotaxis, Rotation, Pauli, W., S. Berger, S. Schmitz, L. Jaskulka, and K. Stadlander, 1993

Effective concentration to 20% of test organisms., Ciliate Protozoa (Tetrahymena thermophila), 3142. MG/L, 48 H, Population.

Results:

No observed effect.

- Validation of Toxicological Endpoints with Tetrahymena. Membrane Functions, Chemotaxis, Cell Rotation in Electric Fields (Validierung Toxikologischer Prüfparameter an Tetrahymena: Membranfunktionen, Chemotaxis, Rotation, Pauli, W., S. Berger, S. Schmitz, L. Jaskulka, and K. Stadlander, 1993

Effective concentration to 50% of test organisms., Ciliate Protozoa (Tetrahymena thermophila), 7462. MG/L, 48 H, Population.

Results:

Affected fish swam at or near surface.

Affected fish lost equilibrium prior to death.

- Validation of Toxicological Endpoints with Tetrahymena. Membrane Functions, Chemotaxis, Cell Rotation in Electric Fields (Validierung Toxikologischer Prüfparameter an Tetrahymena: Membranfunktionen, Chemotaxis, Rotation, Pauli, W., S. Berger, S. Schmitz, L. Jaskulka, and K. Stadlander, 1993

Effective concentration to {0} % of test organisms, Zebra Danio (Danio rerio), adult(s), 1.000 MG/ML, 1 W, Biochemistry, Water temperature: 28.00 C (82.4 F) C.

Results:

Affected fish stopped schooling behavior.

Affected fish became hypoactive.

Affected fish swam at or near bottom.

No loss of equilibrium observed.

- Short-Term Exposure to Low Concentrations of the Synthetic Androgen Methyltestosterone Affects Vitellogenin and Steroid Levels in Adult male Zebrafish (Danio rerio), Andersen, L., R. Goto-Kazeto, J.M. Trant, J.P. Nash, B. Korsgaard, and P. Bjerregaard, 2006

Effective concentration to {0} % of test organisms, Zebra Danio (Danio rerio), adult(s), 1.000 MG/ML, 1 W, Hormone(s), Water temperature: 28.00 C (82.4 F) C.

Results:

Age Effects.

- Short-Term Exposure to Low Concentrations of the Synthetic Androgen Methyltestosterone Affects Vitellogenin and Steroid Levels in Adult male Zebrafish (Danio rerio), Andersen, L., R. Goto-Kazeto, J.M. Trant, J.P. Nash, B. Korsgaard, and P. Bjerregaard, 2006

Effective concentration to {0} % of test organisms, Zebra Danio (Danio rerio), adult(s), 1.000 MG/ML, 1 W, Hormone(s), Water temperature: 28.00 C (82.4 F) C.

Results:

Loss of equilibrium.

- Short-Term Exposure to Low Concentrations of the Synthetic Androgen Methyltestosterone Affects Vitellogenin and Steroid Levels in Adult male Zebrafish (Danio rerio), Andersen, L., R. Goto-Kazeto, J.M. Trant, J.P. Nash, B. Korsgaard, and P. Bjerregaard, 2006

Effective concentration to {0} % of test organisms, Zebra Danio (Danio rerio), adult(s), 1.000 MG/ML, 1 W, Enzyme(s), Water temperature: 28.00 C (82.4 F) C.

Results:

Loss of equilibrium.

- Short-Term Exposure to Low Concentrations of the Synthetic Androgen Methyltestosterone Affects Vitellogenin and Steroid Levels in Adult male Zebrafish (Danio rerio), Andersen, L., R. Goto-Kazeto, J.M. Trant, J.P. Nash, B. Korsgaard, and P. Bjerregaard, 2006

Not reported., Zebra Danio (Danio rerio), adult(s), 1.000 MG/ML, 1 W, Growth, Water temperature: 28.00 C (82.4 F) C.

Results:

Age Effects.





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- Short-Term Exposure to Low Concentrations of the Synthetic Androgen Methyltestosterone Affects Vitellogenin and Steroid Levels in Adult male Zebrafish (*Danio rerio*), Andersen, L., R. Goto-Kazeto, J.M. Trant, J.P. Nash, B. Korsgaard, and P. Bjerregaard, 2006

Effective concentration to {0} % of test organisms, Zebra Danio (*Danio rerio*), adult(s), 1.000 MG/ML, 1 W, Hormone(s), Water temperature: 28.00 C (82.4 F) C.

Results:

Age Effects.

- Short-Term Exposure to Low Concentrations of the Synthetic Androgen Methyltestosterone Affects Vitellogenin and Steroid Levels in Adult male Zebrafish (*Danio rerio*), Andersen, L., R. Goto-Kazeto, J.M. Trant, J.P. Nash, B. Korsgaard, and P. Bjerregaard, 2006

Not reported., Zebra Danio (*Danio rerio*), juvenile(s), 0.100 0/00, 40 D, Mortality, Water temperature: 29.20 C (84.6 F) C.

Results:

Age Effects.

- Evaluation of a 40 day Assay for Testing Endocrine Disrupters: Effects of an Anti-Estrogen and an Aromatase Inhibitor on Sex Ratio and Vitellogenin Concentrations in Juvenile Zebrafish (*Danio rerio*), Andersen, L., K. Kinnberg, H. Holbech, B. Korsgaard, and P. Bjerregaard, 2004

Not reported., Zebra Danio (*Danio rerio*), juvenile(s), 0.100 0/00, 40 D, Population, Water temperature: 29.20 C (84.6 F) C.

Results:

Age Effects.

- Evaluation of a 40 day Assay for Testing Endocrine Disrupters: Effects of an Anti-Estrogen and an Aromatase Inhibitor on Sex Ratio and Vitellogenin Concentrations in Juvenile Zebrafish (*Danio rerio*), Andersen, L., K. Kinnberg, H. Holbech, B. Korsgaard, and P. Bjerregaard, 2004

Not reported., Zebra Danio (*Danio rerio*), juvenile(s), 0.100 0/00, 18 D, Biochemistry, Water temperature: 29.20 C (84.6 F) C.

Results:

Age Effects.

- Evaluation of a 40 day Assay for Testing Endocrine Disrupters: Effects of an Anti-Estrogen and an Aromatase Inhibitor on Sex Ratio and Vitellogenin Concentrations in Juvenile Zebrafish (*Danio rerio*), Andersen, L., K. Kinnberg, H. Holbech, B. Korsgaard, and P. Bjerregaard, 2004

Effective concentration to {0} % of test organisms, Zebra Danio (*Danio rerio*), adult(s), 1.000 MG/ML, 1 W, Genetics, Water temperature: 28.00 C (82.4 F) C.

Results:

Age Effects.

- Short-Term Exposure to Low Concentrations of the Synthetic Androgen Methyltestosterone Affects Vitellogenin and Steroid Levels in Adult male Zebrafish (*Danio rerio*), Andersen, L., R. Goto-Kazeto, J.M. Trant, J.P. Nash, B. Korsgaard, and P. Bjerregaard, 2006

Not reported., Zebra Danio (*Danio rerio*), juvenile(s), 0.100 0/00, 18 - 40 D, Growth, Water temperature: 29.20 C (84.6 F) C.

Results:



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### Age Effects.

- Evaluation of a 40 day Assay for Testing Endocrine Disrupters: Effects of an Anti-Estrogen and an Aromatase Inhibitor on Sex Ratio and Vitellogenin Concentrations in Juvenile Zebrafish (*Danio rerio*), Andersen, L., K. Kinnberg, H. Holbech, B. Korsgaard, and P. Bjerregaard, 2004

Not reported., Ciliate (*Uronema parduczi*), 3425000. UG/L, Population.

### Results:

No observed effect.

- Comparison of the Effect of Toxic Substances on the Flagellate Organisms Such as Ciliates and the Holozoic Bacteria-Devouring Organisms Such as Saprozoic Protozoans (Vergleich der Wirkung von Schadstoffen auf Flagellate, Bringmann, G., and R. Kuhn, 1981

Not reported., Ciliate (*Uronema parduczi*), 3425000. UG/L, 20 H, Population, Water temperature: 0.00 C (32.0 F) C, pH: 6.90.

### Results:

No observed effect.

- Determination of the Biological Effect of Water Pollutants in Protozoa. II. Bacterivorous Ciliates (Bestimmung der Biologischen Schadwirkung Wassergefährdender Stoffe Gegen Protozoen. II. Bakterienfressende Ciliaten, Bringmann, G., and R. Kuhn, 1980

Effective concentration to 10% of test organisms., Green Algae Order (Chlorococcales), 680.0 MG/L, 24 H, Physiology.

### Results:

Affected fish lost equilibrium prior to death.

- Bestimmung der Biologischen Schadwirkung Wassergefährdender Stoffe im Assimilations-Zehrungs-Test (A-Z-Test), Krebs, F., 1991

Effective concentration to 50% of test organisms., Green Algae Order (Chlorococcales), 1000. MG/L, 24 H, Physiology.

### Results:

Affected fish stopped schooling behavior.

Affected fish swam at or near surface.

- Bestimmung der Biologischen Schadwirkung Wassergefährdender Stoffe im Assimilations-Zehrungs-Test (A-Z-Test), Krebs, F., 1991

Effective concentration to 50% of test organisms., Protozoa (*Spirostomum ambiguum*), 116.0 MMOL/L, 24 H, Development, Water temperature: 25.00 C (77.0 F) C, pH: 7.40, Hardness: 2.80 MG/L.

### Results:

No observed effect.

- Spirotox - A new Tool for Testing the Toxicity of Volatile Compounds, Nalecz-Jawecki, G., and J. Sawicki, 1999

LC50, Protozoa (*Spirostomum ambiguum*), 369.0 MMOL/L, 24 H, Mortality, Water temperature: 25.00 C (77.0 F) C, pH: 7.40, Hardness: 2.80 MG/L.

### Results:

No observed effect.

- Spirotox - A new Tool for Testing the Toxicity of Volatile Compounds, Nalecz-Jawecki, G., and J. Sawicki, 1999



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Effective concentration to 50% of test organisms., Protozoa (*Spirostomum ambiguum*), 119.0 MMOL/L, 48 H, Development, Water temperature: 25.00 C (77.0 F) C, pH: 7.40, Hardness: 2.80 MG/L.

Results:

No observed effect.

- Spirotox - A new Tool for Testing the Toxicity of Volatile Compounds, Nalecz-Jawecki, G., and J. Sawicki, 1999

LC50, Protozoa (*Spirostomum ambiguum*), 354.0 MMOL/L, 48 H, Mortality, Water temperature: 25.00 C (77.0 F) C, pH: 7.40, Hardness: 2.80 MG/L.

Results:

No observed effect.

- Spirotox - A new Tool for Testing the Toxicity of Volatile Compounds, Nalecz-Jawecki, G., and J. Sawicki, 1999

Inhibition concentration to 50% of test organisms, Fungus (*Geotrichum candidum*), 660.0 MMOL/L, 4 H, Physiology, Water temperature: 28.00 C (82.4 F) C, pH: 6.50.

Results:

No observed effect.

- Acute Toxicity of 16 Water-Soluble Chemicals to the Fungus *Geotrichum candidum* Measured by Reduction in Glucose Uptake, Jacobsen, T., 1995

Effective concentration to {0} % of test organisms, Coastal Cutthroat Trout (*Oncorhynchus clarkii* ssp. *clarkii*), 0.010 % V/V, 10 S, Physiology.

Results:

No observed effect.

- Behavioral Impairment and Increased Predation Mortality in Cutthroat Trout Exposed to Carbaryl, Labenia, J.S., D.H. Baldwin, B.L. French, J.W. Davis, and N.L. Scholz, 2007

Effective concentration to {0} % of test organisms, Coastal Cutthroat Trout (*Oncorhynchus clarkii* ssp. *clarkii*), 0.010 %, 6 H, Behavior.

Results:

Affected fish swam at or near surface.

Affected fish lost equilibrium prior to death.

- Behavioral Impairment and Increased Predation Mortality in Cutthroat Trout Exposed to Carbaryl, Labenia, J.S., D.H. Baldwin, B.L. French, J.W. Davis, and N.L. Scholz, 2007

Effective concentration to {0} % of test organisms, Coastal Cutthroat Trout (*Oncorhynchus clarkii* ssp. *clarkii*), 0.010 %, 6 H, Enzyme(s).

Results:

Affected fish swam at or near surface.

Affected fish lost equilibrium prior to death.

- Behavioral Impairment and Increased Predation Mortality in Cutthroat Trout Exposed to Carbaryl, Labenia, J.S., D.H. Baldwin, B.L. French, J.W. Davis, and N.L. Scholz, 2007

Effective concentration to {0} % of test organisms, Coastal Cutthroat Trout (*Oncorhynchus clarkii* ssp. *clarkii*), 0.010 %, 6 H, Enzyme(s).

Results:

Affected fish lost equilibrium prior to death.

- Behavioral Impairment and Increased Predation Mortality in Cutthroat Trout Exposed to Carbaryl, Labenia, J.S., D.H. Baldwin, B.L. French, J.W. Davis, and N.L. Scholz, 2007



**Section 13. Disposal Considerations**

**13.1 Waste Disposal Method:** Dispose of contents/container in accordance with local/regional/national/international regulation.

**Section 14. Transport Information**

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Consumer Commodity  
**DOT Hazard Class:** ORM-D ORM-D  
**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:**  
**UN Number:**  
**Hazard Class:** N.A. **ADR Classification:** 2

**14.2 MARINE TRANSPORT (IMDG/IMO):**

**IMDG/IMO Shipping Name:** Aerosols, Ltd. Qty.  
**UN Number:** 1950 **Packing Group:**  
**Hazard Class:** N.A. **IMDG Classification:** 2.1

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Aerosols, flammable, 2.1, Ltd. Qty.  
**UN Number:** 1950  
**Hazard Class:** N.A. **IATA Classification:** 2.1

**Section 15. Regulatory Information**

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
142-82-5	Heptane	No	No	No
124-38-9	Carbon dioxide	No	No	No
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene	No	No	No
67-63-0	Isopropyl alcohol	No	No	Yes
67-64-1	Acetone	No	Yes 5000 LB	No

**CAS # Hazardous Components (Chemical Name)**

**Other US EPA or State Lists**

142-82-5	Heptane	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory, 4 Test, 8A PAIR; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 1339; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: No
124-38-9	Carbon dioxide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 0343; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: Yes
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
67-63-0	Isopropyl alcohol	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory, 4 Test; CA PROP.65: No; CA TAC, Title 8: TAC, Title 8; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 1076; NY Part 597: No; PA HSL: Yes - E; SC TAP: No;



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67-64-1	Acetone	WI Air: No CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory, 4 Test; CA PROP.65: No; CA TAC, Title 8: Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NC TAP: No; NJ EHS: Yes - 0006; NY Part 597: Yes; PA HSL: Yes - E; SC TAP: No; WI Air: Yes
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<b>CAS #</b>	<b>Hazardous Components (Chemical Name)</b>
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**International Regulatory Lists**

142-82-5	Heptane	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
124-38-9	Carbon dioxide	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
5989-27-5	(R)-1-Methyl-4-(1-methylethenyl)-cyclohexene	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
67-63-0	Isopropyl alcohol	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
67-64-1	Acetone	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes

**European Community Hazard Symbol codes:**
**European Community Risk and Safety Phrases:**

No data available.

### Section 16. Other Information

**Revision Date:** 08/22/2014

**Additional Information About This Product:** Not for sale in CA, UT.

**Company Policy or**
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