

## 1. Identification of the substance/preparation and of the company

- Identification of the product:

Trade name: SPUR Modular UR New Developer, comprising Part A1, Part A2, Part A3, and Part B

- Use of the substance/preparation: photographic developing agent, particularly for pictorial development of black and white films.

- Manufacturer/distributor identification

Manufacturer: SPUR, Dipl.-Ing. H. Schain & Partner,  
Schmiedestr. 31, 52379 Langerwehe  
Phone: 0049 (0)2423-6198  
Fax: 0049 (0)2423-406980  
Email: [schain@spur-photo.com](mailto:schain@spur-photo.com)

Distributor: SPUR, Dipl.-Ing. H. Schain & Partner,  
Schmiedestr. 31, 52379 Langerwehe  
Phone: 0049 (0)2423-6198  
Fax: 0049 (0)2423-406980  
Email: [schain@spur-photo.com](mailto:schain@spur-photo.com)

- Further information: 0049 (0)2423-6198

- Competent person, responsible for Safety Data Sheet (email):  
[schain@spur-photo.com](mailto:schain@spur-photo.com) (management)

- Emergency telephone (Germany): 0049 (0)30-19240 (Berlin poison control centre for symptoms of intoxication and embryonal toxicology)

## 2. Hazards identification

- Risk phrase

Part A1:  Xn Harmful;

Part A2:  Xn Harmful;

Part A3:  Xn Harmful;

Part B:  Xi Irritant

- Specific information on dangers for humans and the environment:

Part A1 and A3: R 22 Harmful if swallowed; R 36/38 Irritating to eyes and skin; R 40 Possible risk of cancer; R 43 May cause sensitization by skin contact; R 52 Harmful to aquatic organisms; R 68 Possible risks of irreversible effects

Part A2: : R 22 Harmful if swallowed; R 36/38 Irritating to eyes and skin; R 43 May cause sensitization by skin contact; R 52 Harmful to aquatic organisms; R 68 Possible risks of irreversible effects

Part B: R 36/38 Irritating to skin and eyes

- Classification system:

The product has to be labelled due to the calculation procedure of the "General Classification Guideline for preparations of the EC in its latest valid edition.

### 3. Composition/Information on ingredients

- Chemical characterisation: aqueous solution (all parts)

- Hazardous ingredients:

Part A1:

Diethylene glycol: EINECS: 203-872-2; CAS-RN: 111-46-6

Percentage: < 9 %

Classification: Xn Harmful; R 22

Trilon C: EINECS: 205-391-3; CAS-RN: 140-01-2

Percentage: < 0.8 %

Classification: Xi Irritant; N Hazardous for the environment: R 36-51/53

Hydroquinone sulfonic acid (potassium salt): EINECS: 244-584-7; CAS-RN: 21799-87-1

Percentage: < 2.2 %

Classification: Xi Irritant; R 36-43

Hydroquinone (1,4-Dihydroxybenzene): EINECS: 204-617-8; CAS-RN: 123-31-9

Percentage: < 0.8 %

Classification: Xn Harmful; Xi Irritant; N Hazardous for the environment; R 22-40-41-43-50-68

4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone: EINECS: 235-920-3; CAS-RN: 13047-13-7

Percentage: < 0.7 %

Classification: Xn Harmful; R 22-43

1-Phenyl-3-pyrazolidinone: EINECS: 202-155-1, CAS-RN. 92-43-3

Percentage: < 0.2 %

Classification: Xn Harmful; N Hazardous for the environment; R 22-51/53

Sodium Tetraborate Decahydrate: EINECS: 215-540-4; CAS-RN: 1303-96-4

Percentage: < 2 %

Classification: T: Toxic; repr. cat 2; R 60-61

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## Part A2:

Diethylene glycol: EINECS: 203-872-2; CAS-RN: 111-46-6

Percentage: &lt; 9 %

Classification: Xn Harmful; R 22

Trilon C: EINECS: 205-391-3; CAS-RN: 140-01-2

Percentage: &lt; 0.8 %

Classification: Xi Irritant; N Hazardous for the environment: R 36-51/53

Hydroquinone sulfonic acid (potassium salt): EINECS: 244-584-7; CAS-RN: 21799-87-1

Percentage: &lt; 2.2 %

Classification: Xi Irritant; R 36-43

4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone: EINECS: 235-920-3; CAS-RN: 13047-13-7

Percentage: &lt; 0.7 %

Classification: Xn Harmful; R 22-43

1-Phenyl-3-pyrazolidinone: EINECS: 202-155-1, CAS-RN. 92-43-3

Percentage: &lt; 0.2 %

Classification: Xn Harmful; N Hazardous for the environment; R 22-51/53

Sodium Tetraborate Decahydrate: EINECS: 215-540-4; CAS-RN: 1303-96-4

Percentage: &lt; 2 %

Classification: T: Toxic; repr. cat 2; R 60-61

## Part A3:

Diethylene glycol: EINECS: 203-872-2; CAS-RN: 111-46-6

Percentage: &lt; 10 %

Classification: Xn Harmful; R 22

Trilon C: EINECS: 205-391-3; CAS-RN: 140-01-2

Percentage: &lt; 0.8 %

Classification: Xi Irritant; N Hazardous for the environment: R 36-51/53

Hydroquinone sulfonic acid (potassium salt): EINECS: 244-584-7; CAS-RN: 21799-87-1

Percentage: &lt; 2.2 %

Classification: Xi Irritant; R 36-43

Hydroquinone (1,4-Dihydroxybenzene): EINECS: 204-617-8; CAS-RN: 123-31-9

Percentage: &lt; 0.8 %

Classification: Xn Harmful; Xi Irritant; N Hazardous for the environment; R 22-40-41-43-50-68

4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone: EINECS: 235-920-3; CAS-RN: 13047-13-7

Percentage: &lt; 0.7 %

Classification: Xn Harmful; R 22-43

1-Phenyl-3-pyrazolidinone: EINECS: 202-155-1, CAS-RN. 92-43-3

Percentage: &lt; 0.2 %

Classification: Xn Harmful; N Hazardous for the environment; R 22-51/53

Sodium Tetraborate Decahydrate: EINECS: 215-540-4; CAS-RN: 1303-96-4

Percentage: &lt; 2 %

Classification: T: Toxic; repr. cat 2; R 60-61

**Part B:**

Sodium Hydroxide: EINECS 215-185-5; CAS-Nr. 1310-73-2

Percentage: < 2 %

Classification: C Corrosive; R 35

Trilon C: EINECS: 205-391-3; CAS-RN: 140-01-2

Percentage: < 0.4 %

Classification: Xn Harmful; Xi Irritant: R 20-36/38-63

Potassium Thiocyanate: EINECS: 206-370-1; CAS-Nr. 333-20-0

Percentage: < 1 %

Classification: Xn Harmful; R 20/21/22, R 32, R 52/53

- Additional reference: The wording of the hazard warnings can be looked up under section 16.

**4. First-aid measures**

- General information: Remove items of clothing contaminated by the product immediately.
- Inhalation: Move affected person to fresh air and keep at rest. In case of persistent complaints seek medical advice.
- Skin contact: Wash off thoroughly with plenty of water.
- Eye contact: Remove contact lenses, open eyelids, flush thoroughly with water and consult a doctor.
- Ingestion: If swallowed, rinse mouth and drink plenty of water. Do not induce vomiting. Seek medical advice.
- Special information for your doctor: None.

**5. Fire-fighting-measures**

- Suitable extinguishing media: CO<sub>2</sub>, extinguishing powder, water spray. Fight larger fires with water spray jets or alcohol-resistant foam.
- Non suitable extinguishing media: None
- Specific Hazards: Hazardous combustion products: sulphur dioxide (Part A and Part C), ammonia (Part C)
- Protective equipment: Do not inhale explosion and combustion gases. Wear breathing apparatus and protective clothing.
- Particular fire and explosion hazards: None

## 6. Accidental release measures

- Personal precautions: Provide for sufficient ventilation.
- Environmental precautions: Do not empty into drains; prevent the product from contaminating surface or ground water. If waters or sewage are contaminated, report to the competent authorities. Dilute with plenty of water.
- Methods for cleaning up: Absorb with a liquid-binding agent (sand, mountain flour, sSurebinder, universal binding agent, sawdust). Sweep up and store in suitable container, dispose of contaminated material as waste labelled according to waste law in force.
- Additional information: Flush residues with water.

## 7. Handling and storage

### - Handling:

- Safe handling: Provide for proper ventilation in work area. Avoid long-term and repeated skin contact; no special measures required if used properly.
- Fire and explosion control: No special measures required.

### - Storage:

- Storage facilities and containers: No specific requirements.
- Storage with other substances: Do not store with acids, strong oxidants, and food.

### - Further information on storage conditions:

- Store in well-sealed containers cool and dry. Store away from heat and direct sunlight. Do not expose to light. Keep locked up and out of reach of children. Recommended storage temperature: 5 to 15°C / 41 to 59°F.

### - Storage class:

- Classification according to Ordinance on Industrial Safety and Health: n/a

## 8. Exposure controls/personal protection

- Additional information for system design: None

- Components with workplace-specific control parameters:	
111-46-6 Diethylene glycol	
MAC (Germany)	44 mg/m <sup>3</sup> ; 10 ml/ m <sup>3</sup> 4(I); DFG, Y

- Personal protective equipment:
General protection and hygiene measures: Wash hands before breaks and end of work. Do not inhale gases, vapours, or aerosols. Avoid skin and eye contact.
Respiratory protection: Not required.
Hand Protection: Wear protective gloves made from materials impermeable and resistant to the product/substance/preparation. The materials have to be chosen with due regard to penetration times, permeation rates, and degradation.
Glove material: The choice of a suitable glove not only depends on the material, but also on further quality features and may vary from manufacturer to manufacturer. As the product is a preparation composed of a number of substances, the stability of the glove materials is not predictable and, therefore, needs to be tested before use. The liquid tightness of the glove has to be tested before it is used again. Due to a lack of testing, no glove material can be recommended for the product/substance/preparation.
Penetration time of the glove material: The exact breakthrough time can be given by the protective gloves manufacturer and is to be observed.
Eye Protection: Wear safety goggles.
Skin/body protection: Wear protective clothing.

## 9. Physical and Chemical Properties

Preparation	Part A1	Part A2	Part A3	Part B
- General information				
Form:	liquid	liquid	liquid	liquid
Colour:	light yellow	light yellow	light yellow	white to light green
Odour:	specific	specific	specific	faint smell of ammonia
- Change of state				
Melting point / range	not determined	not determined	not determined	not determined
Boiling point / range	> 100° C	> 100° C	> 100° C	> 100° C
- Flash point	not applicable	not applicable	not applicable	not applicable
- Auto-flammability	no ~	no ~	no ~	no ~
- Explosion hazard	no ~	no ~	no ~	no ~
- Vapour pressure at 20° C	not specified	not specified	not specified	not specified
- Density at 20° C	1.17 g/cm <sup>3</sup>	1.17 g/cm <sup>3</sup>	1.17 g/cm <sup>3</sup>	1.02
- Solubility in/miscibility with water	complete	complete	complete	complete
-pH-value at 20° C	9.95	9.95	9.95	10.9
- Solvent content				
Organic solvent:	0.0 %	0.0 %	0.0 %	0.0 %
Water:	68.4 %	70.6 %	69.5 %	83.4 %
VOC (EU):	0.0 %	0.0 %	0.0 %	0.0 %
- Solids content:	31.6 %	29.4 %	30.5 %	16.6 %

**10. Stability and reactivity**

- Thermal decomposition/conditions to avoid:  
No decomposition when used properly.
- Materials to avoid: Strong acids and oxidising agents
- Hazardous reactions: No hazardous reactions known.
- Hazardous decomposition products: Parts A1, A2, A3: none. Part B: ammonia

**11. Toxicological information**

## - Acute toxicity – Part A1

- Classification relevant LD/LC50 values:		
123-31-9 Hydroquinone		
Oral:	LD50	320 mg/kg (rat)
Dermal:	LD50	> 4800mg/kg (rat)
1303-96-4 Sodium Tetraborate Decahydrate		
Oral:	LD50	2660 mg/kg (rat)
Dermal:	LD50	> 2000 mg/kg (rabbit)
21799-87-1 Hydroquinone sulfonic acid (potassium salt)		
Oral:	LD50	> 10000 mg/kg (rat)
Dermal:	LD50	> 5000 mg/kg (rabbit)
92-43-3 1-Phenyl-3-pyrazolidinone		
Oral:	LD50	200 mg/kg (rat)
13047-13-7 4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone		
Oral:	Oral:	Oral:
Dermal:	Dermal:	Dermal:
111-46-6 Diethylene glycol		
Oral:	LD50	12565 mg/kg (rat)
Oral:	LDLo	1000mg/kg (human)

- Primary irritant effect:
- Skin: Irritant effect possible.
- Eye: Irritant effect possible.
- Sensitisation: May cause sensitisation by skin contact.

## - Acute toxicity – Part A2

- Classification relevant LD/LC50 values:		
1303-96-4 Sodium Tetraborate Decahydrate		
Oral:	LD50	2660 mg/kg (rat)
Dermal:	LD50	> 2000 mg/kg (rabbit)
21799-87-1 Hydroquinone sulfonic acid (potassium salt)		
Oral:	LD50	> 10000 mg/kg (rat)
Dermal:	LD50	> 5000 mg/kg (rabbit)
92-43-3 1-Phenyl-3-pyrazolidinone		
Oral:	LD50	200 mg/kg (rat)
13047-13-7 4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone		
Oral:	Oral:	Oral:
Dermal:	Dermal:	Dermal:
111-46-6 Diethylene glycol		
Oral:	LD50	12565 mg/kg (rat)
Oral:	LDLo	1000mg/kg (human)

## - Acute toxicity – Part A3

- Classification relevant LD/LC50 values:		
123-31-9 Hydroquinone		
Oral:	LD50	320 mg/kg (rat)
Dermal:	LD50	> 4800mg/kg (rat)
1303-96-4 Sodium Tetraborate Decahydrate		
Oral:	LD50	2660 mg/kg (rat)
Dermal:	LD50	> 2000 mg/kg (rabbit)
21799-87-1 Hydroquinone sulfonic acid (potassium salt)		
Oral:	LD50	> 10000 mg/kg (rat)
Dermal:	LD50	> 5000 mg/kg (rabbit)
92-43-3 1-Phenyl-3-pyrazolidinone		
Oral:	LD50	200 mg/kg (rat)
13047-13-7 4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone		
Oral:	Oral:	Oral:
Dermal:	Dermal:	Dermal:
111-46-6 Diethylene glycol		
Oral:	LD50	12565 mg/kg (rat)
Oral:	LDLo	1000mg/kg (human)

## - Acute toxicity – Part B

- Classification relevant LD/LC50 values:		
- 333-20-0 Potassium Thiocyanate		
Oral:	LD50	854 mg/kg (rat)
- Specific symptoms in animal tests		
- 1310-73-2 Sodium hydroxide		
Skin irritation	rabbit, 24 h	result: causes burns (RTECS)
Eye irritation	rabbit, 24 h	result: causes burns. Risk of blindness (RTECS)

## - Primary irritant effect:

- Skin: Irritant to skin and mucous membranes
- Eye: Irritant effect.
- Sensitisation: No sensitising effects known.

**12. Ecological information****- Ecotoxicity – Part A1**

- Aquatic toxicity	
123-31-9 Hydroquinone	
EC50	48h: 0.29 mg/l (daphnia magna)
LC50	96h: 0.044 mg/l (Pimepales promelas)
13047-13-7 4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone	
EC50	24h: 7.1 ppm (Daphnia magna)
LC50	1 – 10 mg/l (fish fathead minnow / Pimephales promelas)
LC50	35 mg/l (fish ide / Leuciscus idus auratus Bade)
LC50	96h: 32 ppm (fish rainbow trout / Onchorhynchus mykiss)
92-43-3 1-Phenyl-3-pyrazolidinone	
LC50	96h: 5 mg/l (Pimepales promelas, fish)

- Remark: Harmful to fish

- General Information:

Water hazard class 2 (self-assessment according to VwVwS(German administrative regulation regarding water pollutants)): Hazardous to water.

Do not empty into drains; do not let product contaminate ground water, waters or sewage. Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms.

**- Ecotoxicity – Part A2**

- Aquatic toxicity	
13047-13-7 4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone	
EC50	24h: 7.1 ppm (Daphnia magna)
LC50	1 – 10 mg/l (fish fathead minnow / Pimephales promelas)
LC50	35 mg/l (fish ide / Leuciscus idus auratus Bade)
LC50	96h: 32 ppm (fish rainbow trout / Onchorhynchus mykiss)
92-43-3 1-Phenyl-3-pyrazolidinone	
LC50	96h: 5 mg/l (Pimepales promelas, fish)

- Remark: Harmful to fish

- General Information:

Water hazard class 2 (self-assessment according to VwVwS(German administrative regulation regarding water pollutants)): Hazardous to water.

Do not empty into drains; do not let product contaminate ground water, waters or sewage. Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms.

## - Ecotoxicity – Part A3

- Aquatic toxicity	
123-31-9 Hydroquinone	
EC50	48h: 0.29 mg/l (daphnia magna)
LC50	96h: 0.044 mg/l (Pimepales promelas)
13047-13-7 4-Hydroxymethyl-4-methyl-1-phenyl-3-pyrazolidone	
EC50	24h: 7,1 ppm (Daphnia magna)
LC50	1 – 10 mg/l (fish fathead minnow / Pimephales promelas)
LC50	35 mg/l (fish ide / Leuciscus idus auratus Bade)
LC50	96h: 32 ppm (fish rainbow trout / Onchorhynchus mykiss)
92-43-3 1-Phenyl-3-pyrazolidinone	
LC50	96h: 5 mg/l (Pimepales promelas, fish)

- Remark: Harmful to fish

## - General Information:

Water hazard class 2 (self-assessment according to VwVwS(German administrative regulation regarding water pollutants)): Hazardous to water.

Do not empty into drains; do not let product contaminate ground water, waters or sewage. Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms.

## - Ecotoxicity – Part B

- Aquatic toxicity	
333-20-0 Potassium thiocyanate	
EC50	48h: 11 mg/l (Daphnia magna)
LC50	96h: 100 mg/l (Onchorhynchus mykiss)
1310-73-2 Natriumhydroxid	
EC50	48h: 40.4 mg/l (crustacea)
LC50	96h: 196 mg/l (fish)

- Remark: Harmful to fish

## - General Information:

Water hazard class 1 (self-assessment according to VwVwS(German administrative regulation regarding water pollutants)): slightly hazardous to water.

Do not empty into drains undiluted or in large quantities; do not let product contaminate ground water, waters or sewage undiluted or in large quantities. Harmful to aquatic organisms.

**13. Disposal considerations**

## - Product (All Parts):

- Empfehlung: Recommendation: Do not dispose of the product through household waste. Do not let product contaminate sewage.

- European Waste Directory	
090101	water-based developer and activator solutions

## - Uncleaned packaging:

- Recommendation: Disposal according to official regulations and requirements.

- Recommended cleaning agent: Water, if necessary, with cleaning agent.

#### 14. Transport information

- Land transport ADR/RID and GGVS/GGVE (cross-border/inland): - ADR/GGVS/E class: -
- Maritime transport IMDG/GGVSea: - IMDG/GGVSea-class: - - Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR: - ICAO/IATA class: -
- UN "Model Regulation" : -

#### 15. Regulatory information

Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV).

Part A1:

- Symbol: Xn;
- R-phrases: R 22 Harmful if swallowed; R 36/38 Irritating to eyes and skin; R 40 Possible risk of cancer; R 43 May cause sensitisation by skin contact; R 52 Harmful to aquatic organisms; R 68 Possible risk of irreversible effects
- S-phrases: S 2 Keep out of the reach of children; S 24 Avoid contact with skin; S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S 29 Do not empty into drains; S 46 If swallowed, seek medical advice immediately and show this container or label.

Part A2:

- Symbol: Xn;
- R-phrases: R 22 Harmful if swallowed; R 36/38 Irritating to eyes and skin; R 43 May cause sensitisation by skin contact; R 52 Harmful to aquatic organisms
- S-phrases: S 2 Keep out of the reach of children; S 24 Avoid contact with skin; S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S 29 Do not empty into drains; S 46 If swallowed, seek medical advice immediately and show this container or label

Part A3:

- Symbol: Xn;
- R-phrases: R 22 Harmful if swallowed; R 36/38 Irritating to eyes and skin; R 40 Possible risk of cancer; R 43 May cause sensitisation by skin contact; R 52 Harmful to aquatic organisms; R 68 Possible risk of irreversible effects
- S-phrases: S 2 Keep out of the reach of children; S 24 Avoid contact with skin; S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; S 29 Do not empty into drains; S 46 If swallowed, seek medical advice immediately and show this container or label.

## Part B:

- Symbol: Xi;
- R-phrases: R 36/38 Irritating to eyes and skin;
- S-phrases: S 2 Keep out of the reach of children; S 24 Avoid contact with skin; S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Special designation of certain preparations: -

National regulations:

Classification according to Ordinance on Industrial Safety and Health (Betriebssicherheitsverordnung: BetrSichV): -

Water hazard class: Part A1, A2, A3: water hazard class 2 (self-assessment): hazardous to water

Part B: water hazard class 1 (self-assessment): slightly hazardous to water

## 16. Other information

The data given in this safety data sheet is based on our present knowledge. It does not guarantee any specific product features and does not establish a contractual legal relationship.

- Relevant R-phrases

R 20 Harmful by inhalation.

R 20/21/22 Harmful by inhalation. Harmful in contact with skin. Harmful if swallowed.

R 22 Harmful if swallowed.

R 32 Contact with acids liberates very toxic gas.

R 35 Causes severe burns.

R 36 Irritating to eyes.

R 36/38 Irritating to eyes. Irritating to skin.

R 40 Limited evidence of a carcinogenic effect.

R 43 May cause sensitization by skin contact.

R 48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

R 50 Very toxic to aquatic organisms.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 51/53 Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

R 52 Harmful to aquatic organisms.

R 52/53 Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

R 63 Possible risk of harm to the unborn child

R 68 Possible risk of irreversible effects.

- Responsible for data sheet: management

- Person of contact: Dipl.-Ing. Heribert Schain

- Abbreviations and Acronyms

ADR: Accord europeen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer ( Regulations concerning the international Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LDLo Lethal dose low

EC50 half maximal effective concentration