

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.06.2015

version no: 1

Revision: 19.06.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

. 1.1 Product identifier

. Trade name: NEUTOL ECO

. Article number: 105104

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture Developer for photographic use

. 1.3 Details of the supplier of the safety data sheet

. Manufacturer/Supplier:

ADOX Fotowerke GmbH
 Pieskower Str. 30 A
 15526 Bad Saarow / Germany
 www.adox.de

. Further information obtainable from: ADOX: +49 (0) 33631 6459-0 E-mail: info@adox.de

. 1.4 Emergency telephone number: Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

SECTION 2: Hazards identification

. 2.1 Classification of the substance or mixture

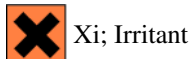
. Classification according to Regulation (EC) No 1272/2008



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

. Classification according to Directive 67/548/EEC or Directive 1999/45/EC



R36: Irritating to eyes.

. Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

. Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

. 2.2 Label elements

. Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

. Hazard pictograms



. Signal word Warning

. Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

. Precautionary statements

P280 Wear protective gloves / eye protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P332+P313 If skin irritation occurs: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local regulations.

. Additional information:

Contains 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP). May produce an allergic reaction.

. 2.3 Other hazards
. Results of PBT and vPvB assessment
. PBT: Not applicable.

. vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

. 3.2 Chemical characterisation: Mixtures
. Description: Mixture of substances listed below and with nonhazardous additions.

. Dangerous components:

CAS: 584-08-7 EINECS: 209-529-3 Reg.nr.: 01-2119532646-36	potassium carbonate ☒ Xi R36/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	10-<25%
CAS: 111-46-6 EINECS: 203-872-2 Index number: 603-140-00-6	diethylene glycol ☒ Xn R22 ⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H302	1-5%
CAS: 7758-02-3 EINECS: 231-830-3 Reg.nr.: 01-2119962195-33	potassium bromide ☒ Xi R36 ⚠ Eye Irrit. 2, H319	1-5%
CAS: 60-00-4 EINECS: 200-449-4 Index number: 607-429-00-8 Reg.nr.: 01-2119486399-18	edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid ☒ Xn R20; ☒ Xi R36 ⚠ Acute Tox. 4, H332; Eye Irrit. 2, H319	1-5%
CAS: 13047-13-7 EINECS: 235-920-3	4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP) ☒ Xn R22; ☒ Xi R43; ☒ N R51/53 ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	<1%

. Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

. 4.1 Description of first aid measures
. General information: Immediately remove any clothing/shoes soiled by the product.

. After skin contact: Immediately rinse with water.

. After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

. After swallowing: If symptoms persist consult doctor.

. 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

. 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

. 5.1 Extinguishing media
. Suitable extinguishing agents:

 CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

. 5.2 Special hazards arising from the substance or mixture

 Nitrogen oxides (NO_x)

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Carbon monoxide (CO)
Under certain fire conditions, traces of other toxic gases cannot be excluded.

. 5.3 Advice for firefighters

. Protective equipment: Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

. 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

. 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

. 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

. 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

. 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

. Information about fire - and explosion protection: Protect from heat.

. 7.2 Conditions for safe storage, including any incompatibilities

. Storage:

. Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

. Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

. Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Protect from exposure to the light.

Store under lock and key and out of the reach of children.

Recommended storage temperature: 5-30 °C

. 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

. Additional information about design of technical facilities: No further data; see item 7.

. 8.1 Control parameters

. Ingredients with limit values that require monitoring at the workplace:

111-46-6 diethylene glycol (1-5%)

WEL (Great Britain)	Long-term value: 101 mg/m ³ , 23 ppm
WEEL (USA)	Long-term value: 10 mg/m ³

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. DNELs
60-00-4 edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid

Oral	Long-term - systemic effects, general population	25 mg/kg bw/day (general population)
Inhalative	Akute /short-term exposure - local effects, worker	2.5 mg/m ³ (Worker (Arbeiter))
	Long-term - local effects, general population	1.5 mg/m ³ (general population)
		1.5 mg/m ³ (general population)
	Long-term exposure - local effects, worker	2.5 mg/m ³ (Worker (Arbeiter))

. **Additional information:** The lists valid during the making were used as basis.

. 8.2 Exposure controls
. Personal protective equipment:
. General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

. **Respiratory protection:** Ensure adequate ventilation

. **Protection of hands:**



Protective gloves

Impervious gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

. Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

. Penetration time of glove material

Glove material	breakthrough-time	layer thickness
Butyl rubber:	>480 min	≥0,4mm
Nitrile rubber:	>480 min	≥0,38mm
Neoprene:	>240 min	≥0,65mm

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

. Eye protection:


Tightly sealed goggles

. **Body protection:** Protective work clothing

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SECTION 9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

. Form:	Fluid
. Colour:	Light yellow
. Odour:	Recognisable
. Odour threshold:	Not determined.

. pH-value at 20 °C: 10.7

. Change in condition

. Melting point/Melting range:	Undetermined.
. Boiling point/Boiling range:	Undetermined.

. Flash point: Not applicable.

. Flammability (solid, gaseous): Not applicable.

. Ignition temperature:

. Decomposition temperature: Not determined.

. Self-igniting: Product is not selfigniting.

. Danger of explosion: Product does not present an explosion hazard.

. Explosion limits:

. Lower:	Not determined.
. Upper:	Not determined.

. Vapour pressure at 20 °C: 23 hPa

. Density at 20 °C:	1.249 g/cm ³
. Relative density	Not determined.
. Vapour density	Not determined.
. Evaporation rate	Not determined.

. Solubility in / Miscibility with water: Fully miscible.

. Partition coefficient (n-octanol/water): Not determined.

. Viscosity:

. Dynamic:	Not determined.
. Kinematic:	Not determined.

. Solvent content:

. Organic solvents:	2.2 %
. Water:	>60 %
. VOC (EC)	2.24 %

. 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

. 10.1 Reactivity No further relevant information available.

. 10.2 Chemical stability

. Thermal decomposition / conditions to be avoided: Stable at environment temperature.

. 10.3 Possibility of hazardous reactions Reacts with acids, alkalis and oxidising agents.

. 10.4 Conditions to avoid No further relevant information available.

. 10.5 Incompatible materials: Under certain fire conditions, traces of other toxic gases cannot be excluded.

. 10.6 Hazardous decomposition products:

Irritant gases/vapours

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Carbon monoxide and carbon dioxide

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SECTION 11: Toxicological information

. 11.1 Information on toxicological effects

. Acute toxicity

. LD/LC50 values relevant for classification:

584-08-7 potassium carbonate

Oral	LD50	>2000 mg/kg (rat)
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111-46-6 diethylene glycol

Oral	LD50	12565 mg/kg (rat)
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7758-02-3 potassium bromide

Oral	LD50	3070 mg/kg (rat)
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60-00-4 edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid

Oral	LD50	>200- <5000 mg/kg (rat)
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Inhalative	LC50	6h: 1000-5000 mg/l (rat)
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13047-13-7 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)

Oral	LD50	566 mg/kg (rat)
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. Primary irritant effect:

. Skin corrosion/irritation

Causes skin irritation.

. Serious eye damage/irritation

Causes serious eye irritation.

. Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

. Acute effects (acute toxicity, irritation and corrosivity)

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

. CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

. Germ cell mutagenicity Based on available data, the classification criteria are not met.

. Carcinogenicity Based on available data, the classification criteria are not met.

. Reproductive toxicity Based on available data, the classification criteria are not met.

. STOT-single exposure Based on available data, the classification criteria are not met.

. STOT-repeated exposure Based on available data, the classification criteria are not met.

. Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity:

111-46-6 diethylene glycol

EC50	24h:	>1000 mg/l (daphnia magna (Water flea))
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LC50	96h:	>32000 mg/l (Invertebrates)
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7758-02-3 potassium bromide

EC50	24h:	1150 mg/l (daphnia magna (Water flea))
------	------	--

60-00-4 edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid

EC50	24h:	>100 mg/l (daphnia magna (Water flea))
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	48h:	>100 mg/l (Invertebrates)
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LC50	135 mg/l (Lepomis macrochirus (Sonnenbarsch))
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13047-13-7 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)
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LC50 1-10 mg/l (fish)

- . **12.2 Persistence and degradability** No further relevant information available.
- . **12.3 Bioaccumulative potential** No further relevant information available.
- . **12.4 Mobility in soil** No further relevant information available.
- . **Additional ecological information:**
- . **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- . **European waste catalogue**

09 01 01*	water-based developer and activator solutions
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- . **Uncleaned packaging:**
- . **Recommendation:** Disposal must be made according to official regulations.
- . **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|--|-----------------|
| . 14.1 UN-Number | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . 14.2 UN proper shipping name | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . 14.3 Transport hazard class(es) | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . Class | Void |
| . 14.4 Packing group | Void |
| . ADR, IMDG, IATA | Void |
| . 14.5 Environmental hazards: | No |
| . Marine pollutant: | No |
| . 14.6 Special precautions for user | Not applicable. |
| . 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| . UN "Model Regulation": | - |

SECTION 15: Regulatory information

- . **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- . **Labelling according to Regulation (EC) No 1272/2008 GHS label elements**

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. **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. **Relevant phrases**

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- H411 Toxic to aquatic life with long lasting effects.
- R20 Harmful by inhalation.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R36/38 Irritating to eyes and skin.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

. **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- DNEL: Derived No-Effect Level (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
- Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
- STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2