

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 25.10.2010

version no: 1

Revision: 25.10.2010

### 1 Identification of the substance/mixture and of the company/undertaking

- **Product details**

- **Trade name:** Roentoroll AC-M

- **Article number:** 104046 5L

- **Application of the substance / the preparation** Developer for X-ray films

- **Manufacturer/Supplier:**

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- **Further information obtainable from:** Department environment and safety. E-mail: info@tetenal.com

- **Information in case of emergency:** Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

### 2 Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**

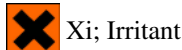


GHS07

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**



Xi; Irritant

R36/38: Irritating to eyes and skin.

- **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.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labelling:** Void

- **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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**· Precautionary statements**

- P280 Wear protective gloves/protective clothing/eye protection/face 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.  
 P321 Specific treatment (see on this label).  
 P362 Take off contaminated clothing and wash before reuse.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.

**· Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

**· Code letter and hazard designation of product:**

Xi Irritant

**· Risk phrases:**

36/38 Irritating to eyes and skin.

**· Safety phrases:**

60 This material and its container must be disposed of as hazardous waste.

### 3 Composition/information on ingredients

**· Chemical characterization**

**· Description:** Mixture of substances listed below with nonhazardous additions.

**· Dangerous components:**

CAS: 584-08-7 EINECS: 209-529-3	potassium carbonate Xi R36/38 Skin Irrit. 2, H315; Eye Irrit. 2, H319	10-25%
CAS: 111-46-6 EINECS: 203-872-2	diethylene glycol Xn R22 Acute Tox. 4, H302	10-25%
CAS: 92-43-3 EINECS: 202-155-1	1-phenyl-3-pyrazolidone Xn R22;  N R51/53 Aquatic Chronic 2, H411;  Acute Tox. 4, H302	<1%

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

### 4 First aid measures

**· General information:**

Immediately remove any clothing/shoes soiled by the product.

Take affected persons out into the fresh air.

**· After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air; consult doctor in case of complaints.

**· After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**· After eye contact:**

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

**· After swallowing:**

Do not induce vomiting; call for medical help immediately.

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Drink plenty of water and provide fresh air. Call for a doctor immediately.  
Rinse out mouth and then drink plenty of water.

### 5 Firefighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)  
Sulphur dioxide (SO<sub>2</sub>)  
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

### 6 Accidental release measures

- **Person-related safety precautions:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Wear protective clothing.
- **Measures for environmental protection:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Pick up mechanically.

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** Protect from heat.
- **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 oxidizing agents.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Protect from heat and direct sunlight.  
Store under lock and key and out of the reach of children.  
Recommended storage temperature: 5-25°C

### 8 Exposure controls/personal protection

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

- **Ingredients with limit values that require monitoring at the workplace:**

**111-46-6 diethylene glycol (10-25%)**

WEL Long-term value: 101 mg/m<sup>3</sup>, 23 ppm

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

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- **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.  
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.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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: Butyl rubber with breakthrough-time:  $\geq 480$  min, layer thickness:  $\geq 0,4$  mmGloves made of nitrile rubber with layer thickness  $>0,38$ mm and breakthrough-time  $>480$ minGlove material: Neopren with breakthrough time:  $>240$  min, layer thickness:  $>0,65$  mm

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

## 9 Physical and chemical properties

- **General Information**

- **Appearance:**

<b>Form:</b>	Fluid
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<b>Colour:</b>	Yellow
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<b>Odour:</b>	Odourless
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- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
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<b>Boiling point/Boiling range:</b>	$> 100^{\circ}\text{C}$
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<b>Flash point:</b>	Not applicable.
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· <b>Ignition temperature:</b>	230°C
· <b>Self-igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	0.7 Vol %
<b>Upper:</b>	22.0 Vol %
· <b>Vapour pressure at 20°C:</b>	23 hPa
· <b>Density at 20°C:</b>	1.36 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>pH-value at 20°C:</b>	11.1
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	10.9 %
<b>Water:</b>	>50 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Stable at environment temperature.
- **Materials to be avoided:** Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.
- **Dangerous decomposition products:** Irritant gases/vapours

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
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

### 12 Ecological information

- **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.  
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -

### 15 Regulatory information

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

### 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.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.
- **R22** Harmful if swallowed.  
**R36/38** Irritating to eyes and skin.  
**R51/53** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Department issuing MSDS:** Department product safety
- **Contact:** e-mail: sida@tetenal.com
- **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)  
RID: Règlement international concernant 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