

# Hardener yellow

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

### Product information

Commercial product name: Hardener yellow (Prod-# 249, 250, 252, 253, 254)

Company: MultiMetall  
Spenglerstraße 3  
D-41749 Viersen  
Telephone: +49 (0) 2162/97009-0  
Telefax: +49 (0) 2162/97009-11  
Emergency telephone number: +49 (0) 2162/97009-0

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Amine formulation

Components: 3-azapentan-1,5-diamin  
CAS-Number: 111-40-0  
Symbol(s): C  
R-phrases: 21/22, 34, 43  
concentration: > = 10,00 - < 25,00 %

Components: phenol  
CAS-Number: 108-95-2  
Symbol(s): T  
R-phrases: 24/25, 34  
concentration: > = 1,00 - < 5,00 %

## 3. HAZARDS IDENTIFICATION

21/22 Harmful in contact with skin and if swallowed  
24/25 Toxic if contact with skin and if swallowed  
34 Causes burns  
43 May cause sensitization by contact with skin

## 4. FIRST AID MEASURES

General advice: Move out of dangerous area. Victim to lie down in the recovery position, cover and keep him warm. Take off all contaminated clothing immediately. Wash with water and soap as precaution.

Eye contact: Rinse immediately with plenty of water, also under the eyelids. Immediately consult a specialist.

Skin contact: If you have skin contact, you must wash off with much water and soap. If irritation persists, consult a specialist.

Inhalation: Move to fresh air. Victim to lie down in the recovery position, cover and keep him warm. Consult a physician after significant exposure.

Ingestion: Prevent vomiting if possible. Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.

## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: water spray, carbon dioxide (CO<sub>2</sub>), foam, dry chemical

Extinguishing media which must not be used for safety reasons: High volume water jet

Specific hazards during fire fighting: In case of fire toxic gases may be built.

Protective equipment: Wear personal protective equipment. In case of insufficient ventilation, wear Suitable respiratory equipment.

Additional information: Risk of bursting. Extinguishing water is to be disposed of in accordance with local authority regulations. Water mist may be used to cool closed containers.

## **6. ACCIDENTAL RELEASE MEASURES**

Personal precautions: Use personal protective equipment. Avoid contact with skin, eyes and clothing.  
Environmental precautions: Do not allow to reach sewage system or water bodies. Do not allow to enter the ground/soil.  
Methods for cleaning up: Soak up with inert absorbent material e.g. sand, silica gel, acid binder, universal binder, sawdust. Keep in suitable, closed containers for disposal. Clean contaminated surface thoroughly.  
Additional information: Inform fire brigade or police if the product has penetrated into water into the sewerage or if soil or plants have been contaminated.

## **7. HANDLING AND STORAGE**

Safe handling advice: Ensure adequate ventilation/exhaustion at the workplace. No special precautions necessary if used correctly.  
Advice on protection against fire and explosion: No special precautions necessary if used correctly  
Requirements for storage areas and containers: Keep container tightly closed. Keep cool, well-ventilated place.  
Advice on common storage: Do not store near acids. Keep away from food, drink and animal feeding stuffs.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information on the lay-out of technical plant: Ensure adequate ventilation, especially in confined areas.

### Components with workplace control parameters

Components: phenol  
CAS-Number: 108-95-2  
Value: 5 ml/m<sup>3</sup>, 19 mg/m<sup>3</sup>  
Release notes: 1999  
Basis: TRGS 900

### Personal protection equipment

Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment.  
Hand protection: Rubber or plastic gloves  
Eye protection: Tightly fitting safety goggles  
Skin and body protection: Long sleeved clothing  
Hygiene measures: Wash hands before breaks and the end of workday. Avoid contact with skin and eyes. Remove and wash contaminated clothing before re-use. Keep away from food and drink.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### Appearance

Appearance: pasty (Prod-# 249, 252, 253)  
liquid (Prod-# 250, 254)  
Form:  
Colour: yellowbrown  
Odour: amine-like

### Other data

Boiling point/range: > 200°C at 1.013 hPa  
Flash point: > 111°C at 1.013 hPa method DIN 51758  
Ignition temperature: > 350°C method DIN 51794  
Upper explosion limit:  
Lower explosion limit:  
Vapour pressure:  
Density: at 20°C 1,08 g/ml  
Solubility/qualitative:  
Water solubility: slightly soluble

pH-value: 10,3 at 20 g/l/20°C  
Viscosity, dynamic: 25°C 42.000 mPa (Prod-# 249, 252, 253)  
25°C 500-700 mPa (Prod-# 250, 254)

## **10. STABILITY AND REACTIVITY**

Thermal decomposition: No decomposition if stored and applied as directed. To avoid thermal decomposition, do not overheat.  
Hazardous reactions: strong exothermic reaction with acids and acid developing substances. Exothermic reaction with isocyanates.  
Hazardous decomposition products: No decomposition if stored and applied as directed.

## **11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity: Product is not tested.  
Acute inhalation toxicity:  
Acute dermal toxicity:  
Skin irritation: Rabbit, classification corrosive, method directive 92/32/EEC, Annex V. B.4  
Eye irritation:  
Sensitization: May cause sensitization for susceptible persons by skin contact.  
Human Experience: Prolonged exposure causes local irritation of skin and mucous membranes, especially to the eyes.

## **12. ECOLOGICAL INFORMATION**

### Elimination information (persistence and degradability)

Biodegradability: Due to the chemical formulation biological degradability is expected.  
Physico-chemical removability: Cannot be separated mechanically in a sewage plant, partially miscible in water.  
AOX:  
Additional information: No interference in the degradability of the activated sludge is to be expected in biological clarification plants.

## **13. DISPOSAL CONSIDERATIONS**

Products: Must be incinerated in a suitable incineration plant authorised under the Environmental Protection Act.  
Package not cleaned: Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.

## **14. TRANSPORT INFORMATION**

Land transport: UN-No. 2735  
Proper shipping name 2735 Polyamines liquid, corrosive n.o.s.  
amine adducts/isophorone diamine  
Class 8  
Item 53c ADR  
H1 Number 80  
Sea transport: UN-No. 2735  
Proper shipping name Polyamines n.o.s. (amine adduct/isophorone diamine)  
Class 8  
Packing group II  
EmS 8-05  
MFAG 320  
Marine pollutant no  
Air transport: UN-No. 2735  
Proper shipping name Polyamines liquid, corrosive n.o.s.  
(amine adduct/isophorone diamine)  
Class 8  
Packing group III

## **15. REGULATORY INFORMATION**

### Labelling according to EEC Directive

EEC/67/548 The product is classified and labelled in accordance with the German GefStoffV and the respective actuell EG Directives.

Hazard-determining components of labelling:	3-azapentan-1,5-diamin phenol
Symbol(s):	C Corrosive
R-phrases:	R 21/22 Harmful in contact with skin and if swallowed R 24/25 Toxic if contact with skin and if swallowed R 34 Causes burns R 43 May cause sensitization by contact with skin
S-phrases:	S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advise S 36/37/38 Wear suitable protective clothing, gloves and eye/face protection S 45 In case of accident or if you feel unwell, seek medical advice immediately, show label where possible

## **16. OTHER INFORMATION**

These information are based on the present state of our knowledge and do therefore not guarantee certain properties. However, it shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.