

# Safety data sheet

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

Printing date 08.01.2023

Revision: 08.01.2023

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

- **1.1 Product identifier**
  - **Trade name:** MR® 672 F Penetrant fluorescent level 2
  - **1.2 Relevant identified uses of the substance or mixture and uses advised against**
  - **Sector of Use**  
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
  - **Product category**  
PC14 Metal surface treatment products, including galvanic and electroplating products
  - **Process category**  
PROC7 Industrial spraying  
PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities  
PROC13 Treatment of articles by dipping and pouring
  - **Environmental release category**  
ERC4 Industrial use of processing aids in processes and products, not becoming part of articles
  - **Article category** AC7 Metal articles
  - **Application of the substance / the mixture**  
Testing material for nondestructive surface crack detection
  - **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
3AK Chemie Pvt. Ltd.  
5/B5/1 - TSIC Automotive Park, Kallakal, Telangana, INDIA  
Dist: Medak  
Pin: 502336  
Email: qc@3akchemie.com
  - **Further information obtainable from:** 3AK Chemie Pvt. Ltd. Safety Data Sheets, qc@3akchemie.com
  - **1.4 Emergency telephone number:**  
24h- Emergency Contact Phone Number  
For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident  
Call Day or Night within USA and Canada: 1 800 424 9300  
Outside USA and Canada: 001 703 527 3887  
In-Country Emergency Number for:
 

Australia:	+61 433 289 052	(English)
Hong Kong:	800 968 793	(Cantonese)
India:	000 800 100 7141	(Hindi)
South Africa:	0 800 983 611	(English)
- (WISAG FMO Cargo Service GmbH & CO.KG)

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.

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### · Hazard pictograms



GHS07

### · Signal word Warning

### · Hazard statements

H319 Causes serious eye irritation.

### · Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash thoroughly after handling.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

### · 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 with nonhazardous additions.

### · Dangerous components:

CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	Eye Irrit. 2, H319	40-60%
EINECS: 203-961-6			

· **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 soiled by the product.· **After inhalation:** 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. Then consult a doctor.

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.

### · Information for doctor:

Grease with skin-cream to restore fat film in order to prevent skin inflammation.

### · 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:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

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- **5.2 Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** 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).  
Dispose contaminated material as waste according to item 13.  
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.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
Condition of the tanks and stockrooms is to be co-ordinated with the responsible authorities.  
Keep receptacles tightly sealed.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **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:

#### 112-34-5 2-(2-butoxyethoxy)ethanol

IOELV (EU)	Short-term value: 101.2 mg/m <sup>3</sup> , 15 ppm Long-term value: 67.5 mg/m <sup>3</sup> , 10 ppm
WEL (Great Britain)	Short-term value: 101.2 mg/m <sup>3</sup> , 15 ppm Long-term value: 67.5 mg/m <sup>3</sup> , 10 ppm
AGW (Germany)	Long-term value: 67 mg/m <sup>3</sup> , 10 ppm 1.5(l);EU, DFG, Y, 11

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### • DNELs

#### 112-34-5 2-(2-butoxyethoxy)ethanol

Dermal	Long-term - systemic effects, worker	20 mg/kg bw/day (worker)
Inhalative	Acute - local effects, worker	101.2 mg/m <sup>3</sup> (worker)
	Long-term - local effects, worker	67.5 mg/m <sup>3</sup> (worker)
	Long-term - systemic effects, worker	67.5 mg/m <sup>3</sup> (worker)

### • PNECs

#### 112-34-5 2-(2-butoxyethoxy)ethanol

Aquatic compartment - marine water	0.1 mg/L (marine water)
Aquatic compartment - water intermittent releases	3.9 mg/L (intermittent release water)
Aquatic compartment sediment in marine water	0.4 mg/kg sed dw (sediment marine water)
Aquatic compartment, freshwater	1 mg/L (freshwater)
Aquatic compartment- sediment in freshwater	4 mg/kg sed dw (sediment fresh water)
Oral secondary poisoning	56 mg/kg food (food secondary poisoning)
Terrestrial compartment - soil	0.4 mg/kg dw (soil)

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

### • 8.2 Exposure controls

#### • Personal protective equipment:

#### • General protective and hygienic measures:

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:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

For good ventilation provide, this can be achieved by local or space exhaust. If the concentration lies over the job limit values, then, a certified respirator suitable for this purpose must be used.

#### • Protection of hands:

Check the permeability prior to each renewed use of the glove.

For the permanent contact in work areas with heightened risk of injury (mechanical hazard) no recommendation for a suitable glove material can be given.

Protective 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

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.5$  mm

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.

#### • Penetration time of glove material

Value for the permeation: Level  $\leq 4$

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

• **Eye protection:** With danger of the eye contact closing eye protector.

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· **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: Yellow

· **Odour:** Mild

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· **Flash point:** 112 °C  
Basis: active substance

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 225 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

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

· **Explosion limits:**

Lower: 0.9 Vol %

Upper: 5.9 Vol %

· **Vapour pressure at 20 °C:** 0.1 hPa

· **Density at 20 °C:** 0.976 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

water: Not miscible or difficult to mix.

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

· **Viscosity:**

Dynamic: Not determined.

Kinematic at 20 °C: 45.5 mm<sup>2</sup>/s

Organic solvents: 36.3 %

VOC (EU) < 0.1 %

· **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

· **10.1 Reactivity**

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

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- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values relevant for classification:**

**112-34-5 2-(2-butoxyethoxy)ethanol**

Dermal	LD50	4000 mg/kg (rbt)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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:** No further relevant information available.
- **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:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Water hazard class 1: weakly water-endangering
- **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**  
After arrangement with the local water authority the product in aqueous dilution (washing water) can be introduced into drains, as far as it was not continued to contaminate by the user.  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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· **Waste disposal key:**

For this product no waste key number can be specified, because only the intended purpose permits an allocation. The waste key number is to be specified in arrangement with the regional waste disposal.

· **European waste catalogue**

07 07 04*	other organic solvents, washing liquids and mother liquors
15 01 10*	packaging containing residues of or contaminated by dangerous substances

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, ADN, IMDG, IATA** Void

· **14.2 UN proper shipping name**

· **ADR, ADN, IMDG, IATA** Void

· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class** Void

· **14.4 Packing group**

· **ADR, IMDG, IATA** Void

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Not applicable.

· **14.7 Transport in bulk according to Annex II  
of MARPOL73/78 and the IBC Code**

Not applicable.

· **UN "Model Regulation":**

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### SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **National regulations:**

· **Waterhazard class:**

Water hazard class 1: slightly hazardous for water. (In accordance with classification VwVwS, appendix 4)

· **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.

The data in this safety data sheet are based on our knowledge at the time of the revision. The information should give you reference points for a safe handling of the product specified in this safety data sheet. The data are not transferable to other products. If the product specified in this

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safety data sheet is mixed or processed with other materials, the data cannot be transferred without examination.

- **Relevant phrases**

The wording of the listed risk phrases are those of the individual raw materials.

H319 Causes serious eye irritation.

- **Recommended restriction of use**

Existing national and local laws concerning chemicals are to be considered.

- **Department issuing MSDS: 3AK Chemie Pvt. Ltd.**

- **Contact: 3AK Chemie Pvt. Ltd., Safety Data Sheets, Email:qc@3akchemie.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)

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)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

- **\* Data compared to the previous version altered.**