Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 13.01.2023 Revision: 13.01.2023

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

· **1.1 Product identifier**
· **Trade name: MR®67 Penetrant red and fluorescent**
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Life cycle stages**
F Formulation or re-packing
IS Use at industrial Sites
· **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU14 Manufacture of basic metals, including alloys
· **Product category** PC14 Metal surface treatment products
· **Process category**
PROC7 Industrial spraying
PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC13 Treatment of articles by dipping and pouring
· **Environmental release category**
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
· **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 - TSIIC Automotive Park,
Kallakal, Telangana, INDIA
Dist: Medak
Pin: 502336
Email: qc@3akchemie.com

· **Further information obtainable from:**
3AK Chemie Pvt. Ltd. Safety Data Sheet, 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:

Germany:	0800-181-7059	
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)

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SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified according to the CLP regulation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void

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· **Additional information:**
EUH210 Safety data sheet available on request.
· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

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

· **Dangerous components:**		
CAS: 102-71-6 EINECS: 203-049-8	2,2',2''-nitrilotriethanol substance with a Community workplace exposure limit	2.5-10%
CAS: 509-34-2 EINECS: 208-096-8	3',6'-Bis(diethylamino)spiro(isobenzofuran-1(3H),9'-(9H)xanthen)-3-on Aquatic Acute 1, H400 Acute Tox. 4, H302; Eye Irrit. 2, H319 Aquatic Chronic 3, H412	1-5%

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

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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.
· **After swallowing:**
If symptoms persist consult doctor.
Rinse out mouth.
· **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**
CO_2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Suitable extinguishing agents:**
CO_2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
· **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)

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· **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.
· **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** No special measures required.
· **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.

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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:**	
102-71-6 2,2',2''-nitrilotriethanol	
MAK (Germany)	Long-term value: 5E mg/m³

· **DNELs**		
102-71-6 2,2',2''-nitrilotriethanol		
Dermal	Long-term - systemic effects, worker	6.3 mg/kg bw/day (worker)
Inhalative	Long-term - systemic effects, worker	5 mg/m³ (worker)
	Long-term - local effects, worker	5 mg/m³ (worker)
57-55-6 Methyl glycol		
Inhalative	Long-term - systemic effects, worker	168 mg/m³ (worker)
	Long-term - local effects, worker	10 mg/m³ (worker)

· **PNECs**	
102-71-6 2,2',2''-nitrilotriethanol	
Aquatic compartment, freshwater	0.32 mg/L (freshwater)
Aquatic compartment - marine water	0.032 mg/L (marine water)
Aquatic compartment - water intermittent releases	5.12 mg/L (intermittent release water)

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Aquatic compartment- sediment in freshwater	1.7 mg/kg sed dw (sediment fresh water)
Aquatic compartment sediment in marine water	0.17 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	0.151 mg/kg dw (soil)
Sewage treatment plant	10 mg/L (sewage treatment plant)
57-55-6 Methyl glycol	
Aquatic compartment, freshwater	260 mg/L (freshwater)
Aquatic compartment - marine water	26 mg/L (marine water)
Aquatic compartment- sediment in freshwater	572 mg/kg sed dw (sediment fresh water)
Aquatic compartment sediment in marine water	57.2 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	50 mg/kg dw (soil)
Sewage treatment plant	20000 mg/L (sewage treatment plant)

· **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.
Wash hands before breaks and at the end of work.
Do not eat or drink while working.
· **Respiratory protection:**
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.
Filter A/P2
· **Protection of hands:**
Check the permeability prior to each anewed 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.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
PVC gloves
Recommended thickness of the material: ≥ 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 ≤ 6
Supplier for suitable protection gloves:
ASD ArbeitsSicherheit Dortmund
Torstr. 101 - 37355 Niederorschel OT Rüdigershagen
Tel.: 02301 / 919543 - Fax: 02301 / 9453893
E-Mail: m.schnellhardt@t-online.de - http://www.arbeitssicherheitdortmund.de
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:** Safety glasses
· **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

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Colour:	Red
· **Odour:**	Recognisable
· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100 °C
· **Flash point:**	101 °C Basis: active substance
· **Flammability (solid, gas):**	Not applicable.
· **Ignition temperature:**	305 °C
· **Decomposition temperature:**	Not determined.
· **Auto-ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	2.6 Vol %
Upper:	12.6 Vol %
· **Vapour pressure at 20 °C:**	23 hPa
· **Density at 20 °C:**	1.02 g/cm³
· **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.
Organic solvents:	20.0 %
Water:	69.2 %
VOC (EU)	<0.1 %
· **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:**
No decomposition if used according to specifications.
· **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.

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SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
102-71-6 2,2',2''-nitrilotriethanol		
Oral	LD50	8000 mg/kg (rat)
57-55-6 Methyl glycol		
Oral	LD50	2000 mg/kg (rat)
Dermal	LD50	20800 mg/kg (rbt)
Siloxan Polyalkylenoxid Copolymer		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4 h	2 mg/l (rat)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **CMR effects (carcinogenity, 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.

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SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** Easily biodegradable
· **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: slightly hazardous for water.(In accordance with classification VwVwS,appendix 4)
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

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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 to be introduced into drains, as far as it was not continued to contaminate by the user.
Eliminate in accordance with local regulations.

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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.
The indications for Waste key reflect the pure unmodified product and are only a recommendation.

· **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 Marpol and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	Void

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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

· **National regulations:**

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information

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 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.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

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· **Recommended restriction of use**
Existing national and local laws concerning chemicals are to be considered.

· **Department issuing SDS:** 3AK Chemie Pvt. Ltd.
· **Contact:** 3AK Chemie Pvt. Ltd. Safety data sheets, Email:qc@3akchemie.com
· **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
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
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
· *** Data compared to the previous version altered.**