

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.07.2023

Revision: 29.07.2023

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

- **1.1 Product identifier**
- **Trade name: MR® 88 Remover**
- **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
PC9a Coatings and paints, thinners, paint removers
PC35 Washing and cleaning products (including solvent based 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 - TSIIIC 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)

SECTION 2: Hazards identification

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



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

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



GHS02

- **Signal word** Danger
- **Hazard statements**
H225 Highly flammable liquid and vapour.
- **Precautionary statements**
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P103 Read label before use.
 - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - P240 Ground/bond container and receiving equipment.
 - P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P403+P235 Store in a well-ventilated place. Keep cool.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**
EUH066 Repeated exposure may cause skin dryness or cracking.
- **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: 64-17-5 EINECS: 200-578-6	ethanol	Flam. Liq. 2, H225	>90%
CAS: 67-63-0 EINECS: 200-661-7	2-Propanol	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	< 2.5%

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Take affected persons out into the fresh air.
Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
If skin irritation continues, consult a doctor.

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- 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.
- **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:**
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**
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**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Prevent seepage into sewage system, workpits and cellars.
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** Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **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:**

64-17-5 ethanol

WEL (Great Britain)	Long-term value: 1920 mg/m ³ , 1000 ppm
AGW (Germany)	Long-term value: 960 mg/m ³ , 500 ppm 2(II);DFG, Y

67-63-0 2-Propanol

WEL (Great Britain)	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
AGW (Germany)	Long-term value: 500 mg/m ³ , 200 ppm 2(II);DFG, Y

· **DNELs**

64-17-5 ethanol

Dermal	Long-term - systemic effects, worker	343 mg/kg bw/day (worker)
Inhalative	Acute - local effects, worker	1900 mg/m ³ (worker)
	Long-term - systemic effects, worker	950 mg/m ³ (worker)

67-63-0 2-Propanol

Dermal	Long-term - systemic effects, worker	888 mg/kg bw/day (worker)
Inhalative	Long-term - systemic effects, worker	500 mg/m ³ (worker)

· **PNECs**

64-17-5 ethanol

Aquatic compartment, freshwater	0.96 mg/L (freshwater)
Aquatic compartment - marine water	0.79 mg/L (marine water)
Aquatic compartment - water intermittent releases	2.75 mg/L (intermittent release water)
Aquatic compartment- sediment in freshwater	3.6 mg/kg sed dw (sediment fresh water)
Aquatic compartment sediment in marine water	2.9 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	0.63 mg/kg dw (soil)
Sewage treatment plant	580 mg/L (sewage treatment plant)
Oral secondary poisoning	0.72 mg/kg food (food secondary poisoning)

67-63-0 2-Propanol

Aquatic compartment, freshwater	140.9 mg/L (freshwater)
Aquatic compartment - marine water	140.9 mg/L (marine water)
Aquatic compartment- sediment in freshwater	552 mg/kg sed dw (sediment fresh water)
Aquatic compartment sediment in marine water	552 mg/kg sed dw (sediment marine water)
Terrestrial compartment - soil	28 mg/kg dw (soil)
Sewage treatment plant	2251 mg/L (sewage treatment plant)
Oral secondary poisoning	160 mg/kg food (food secondary poisoning)

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· Ingredients with biological limit values:**67-63-0 2-Propanol**

BGW (Germany)	25 mg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton
	25 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton

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

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

· **Respiratory protection:**

Filter A2 - P 2 EN 141, 143, 371

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

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: ≥ 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

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

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>

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

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

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· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	Undetermined. 78 °C
· Flash point:	13 °C Basis: active substance
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	425 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits: Lower: Upper:	3.5 Vol % 15.0 Vol %
· Vapour pressure at 20 °C:	59 hPa
· Density at 20 °C: · Relative density · Vapour density · Evaporation rate	0.79 g/cm ³ Not determined. Not determined. Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic at 20 °C: Kinematic: Organic solvents: VOC (EU) · 9.2 Other information	1 mPas Not determined. 100.0 % 100 % 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.

SECTION 11: Toxicological information

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

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· LD/LC50 values relevant for classification:

64-17-5 ethanol

Oral	LD50	7060 mg/kg (rat)
Inhalative	LC50/4 h	20000 mg/l (rat)

67-63-0 2-Propanol

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rbt)
Inhalative	LC50/4 h	30 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 (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 product to reach ground water, water course or sewage system, even in small quantities.
- **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.
- **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
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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· Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number	UN1987
· ADR, IMDG, IATA	
· 14.2 UN proper shipping name	1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL))
· ADR	1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL))
· IMDG	ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL))
· IATA	Alcohols, n.o.s. (Ethanol)
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	3 (F1) Flammable liquids.
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	II
· ADR, IMDG, IATA	
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	33
· EMS Number:	F-E,S-D
· Stowage Category	B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L

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· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1987, ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL)), 3, II

SECTION 15: Regulatory information

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

REACH international regime: REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45 / EC and repealing Regulation (EEC) No 793/93 and Regulation (EC) No 1488/94 and Directive 76/769 / EEC and of the Commission 91/155 / EEC directives 93/67 / EEC , 93/105 / EC and 2000/21 / EC

2. CLP international regime: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC and amending Regulation (EC) No. 1907/2006

3. REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

3.a REGULATION (EU) No 830/2015 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

4. Domestic regulations on hazardous substances: Act XXV / 2000 on chemical safety and its amendments

Amendments to Regulation No. 44/2000 (XII.27) EüM the Minister of Health on the detailed rules for certain procedures and activities, dangerous substances and dangerous preparations related to

5. House Regulation on waste: CLXXXV Act 2012 on waste Government Decree No 98/2001 (VI.15.) One of the conditions of the activities related to hazardous wastes and their changes 72/2013 (VIII. 27) VM Decree on Waste Catalogue

6. Domestic Regulation on Water Pollution: Government Decree No. 220/2004 (VII. 21) and its amendments

7. House Regulation on Safety and Health: Act XCIII of 1993 on occupational safety, its amendments and relevant Ministry of Labour and the Ministry of National Economy decrees

8. House regulation on chemical safety of workplaces: Joint Decree No. 25/2000 A. EüM-SzCsM and its amendments

9. Regulations on aerosol: NGM (Ministry of Economics) Decree No. 34/2014 on the requirements of the distribution of aerosol products and aerosol packaging

· Directive 2012/18/EU

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5.000 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50.000 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

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

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.

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- **Relevant phrases**

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

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

- **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 Sheet, 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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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