Printing date 17.01.2023 Revision: 17.01.2023

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

- · 1.1 Product identifier
- · Trade name: MR® 70 Developer white

**Aerosol** 

- · 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 - TSIIC 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:

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



Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

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Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

#### · 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





GHŠ02 GHŠ0:

### · Signal word Danger

## · Hazard-determining components of labelling:

2-Propanol

acetone

### · Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

### **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P251 Do not pierce or burn, even after use.

P211 Do not spray on an open flame or other ignition source.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410+P412 P501 Pispose of contents/container in accordance with local/regional/national/

international regulations.

### · Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking. Buildup of explosive mixtures possible without sufficient ventilation.

### 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 compor	nents:		
CAS: 67-63-0 EINECS: 200-661-7	2-Propanol	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	40-60%
CAS: 67-64-1 EINECS: 200-662-2	acetone	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	20-30%

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	(Conto	l. of page 2)
CAS: 74-98-6 EINECS: 200-827-9	Flam. Gas 1, H220 Press. Gas C, H280	10-25%
	 ,	10-25%
EINECS: 203-448-7	 Flam. Gas 1, H220 Press. Gas C, H280	10-25 /0

· Propellant: Propane-Butane

· 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.

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: Not relevant aerosol can.
- · 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:** Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

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.

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# **SECTION 7: Handling and storage**

- · 7.1 Precautions for safe handling No special precautions are necessary if used correctly.
- Information about fire and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, e.g. electric lights. Do not pierce or burn, even after use.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

- 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

0.1 Control parame	
	nit values that require monitoring at the workplace:
67-63-0 2-Propanol	
WEL (Great Britain)	Short-term value: 1250 mg/m³, 500 ppm Long-term value: 999 mg/m³, 400 ppm
AGW (Germany)	Long-term value: 500 mg/m³, 200 ppm 2(II);DFG, Y
67-64-1 acetone	
IOELV (EU)	Long-term value: 1210 mg/m³, 500 ppm
WEL (Great Britain)	Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm
AGW (Germany)	Long-term value: 1200 mg/m³, 500 ppm 2(I);DFG, EU
74-98-6 propane	
AGW (Germany)	Long-term value: 1800 mg/m³, 1000 ppm 4(II);DFG
106-97-8 butane	
WEL (Great Britain)	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1,3-diene)
AGW (Germany)	Long-term value: 2400 mg/m³, 1000 ppm 4(II);DFG
· DNELs	
67-63-0 2-Propanol	
Dermal Long-tern	n - systemic effects, worker 888 mg/kg bw/day (worker)
Inhalative Long-tern	n - systemic effects, worker 500 mg/m³ (worker)
67-64-1 acetone	1
Dermal Long-tern	n - systemic effects, worker   186 mg/kg bw/day (worker)
Inhalative Long-tern	n - systemic effects, worker   1210 mg/m³ (worker)

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		(Contd. of page 4)
Long-t	erm - local effects, worker	2420 mg/m³ (worker)
·PNECs		
67-63-0 2-Propar	nol	
Aquatic compartn	nent, freshwater	140.9 mg/L (freshwater)
Aquatic compartn	nent - marine water	140.9 mg/L (marine water)
Aquatic compartn	nent- sediment in freshwater	552 mg/kg sed dw (sediment fresh water)
Aquatic compartn	nent sediment in marine water	552 mg/kg sed dw (sediment marine water)
Terrestrial compa	ırtment - soil	28 mg/kg dw (soil)
Sewage treatmen	it plant	2251 mg/L (sewage treatment plant)
Oral secondary po	oisoning	160 mg/kg food (food secundary poisoning)
67-64-1 acetone		
Aquatic compartn	nent, freshwater	10.6 mg/L (freshwater)
Aquatic compartn	nent - marine water	1.06 mg/L (marine water)
Aquatic compartn	nent- sediment in freshwater	30.4 mg/kg sed dw (sediment fresh water)
Aquatic compartn	nent sediment in marine water	3.04 mg/kg sed dw (sediment marine water)
Terrestrial compa	ırtment - soil	29.5 mg/kg dw (soil)
· Ingredients with	biological limit values:	
67-63-0 2-Propar	nol	
BGW (Germany)	Untersuchungsmaterial: Vollb Probennahmezeitpunkt: Expo Parameter: Aceton 25 mg/l Untersuchungsmaterial: Urin	lut sitionsende bzw. Schichtende sitionsende bzw. Schichtende
67-64-1 acetone	L	
BGW (Germany)	80 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expo Parameter: Aceton	sitionsende bzw. Schichtende

- 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:

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 protective gloves prior to each use for their proper condition.

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

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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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 < 4

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:** 

Impervious protective clothing Protective work clothing

9.1 Information on basic physical and General Information	d chemical properties
Appearance: Form:	Aerosol
Colour:	Suspension with white solids
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not applicable, as aerosol.
Flash point:	-97 °C
	Basis: propellant
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	Not determined - aerosol.
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:	1,5 Vol %
Upper:	13,0 Vol %
Vapour pressure at 20 °C:	8300 hPa
	Basis: propellant
Spray can internal pressure (20 °C):	5.0 bar
Spray can internal pressure (50 °C):	8.5 bar
Density at 20 °C:	0,83 g/cm³
	Basis: active substance
Relative density	Not determined.

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Vapour densityEvaporation rateNot determined.Not applicable.

· Solubility in / Miscibility with

water: Pigments are insoluble in water. Liquid is miscible with

water.

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

· Viscosity:

**Dynamic:** Not determined. **Kinematic:** Not determined.

 Organic solvents:
 92,4 %

 VOC (EU)
 94,4 %

**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:

Danger of bursting of the aerosol can during overheating

- · 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.

· LD/LC50 v	/alues rele	evant for classification:
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)
67-64-1 ad	etone	
Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rbt)
106-97-8 k	outane	
Inhalative	LC50/4 h	658 mg/l (rat)

- 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 (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

May cause drowsiness or dizziness.

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- · 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

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.

· Europear	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, IMDG, IATA	UN1950	
· 14.2 UN proper shipping name		
· ADR	1950 AEROSOLS	
· IMDG	AEROSOLS	
· IATA	Aerosols, flammable	

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(Contd. of page 8) · 14.3 Transport hazard class(es) · ADR 2 5F Gases. · Class · Label 2.1 · IMDG, IATA 2.1 · Label 2.1 · 14.4 Packing group · ADR, IMDG, IATA Void · 14.5 Environmental hazards: · Marine pollutant: No · 14.6 Special precautions for user Warning: Gases. · Danger code (Kemler): · EMS Number: F-D,S-U · Stowage Code SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. Segregation Code SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2. · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable. · Transport/Additional information: · Limited quantities (LQ) · Excepted quantities (EQ) Code: E0 Not permitted as Excepted Quantity · Transport category · Tunnel restriction code · Limited quantities (LQ) 1L · Excepted quantities (EQ) Code: E0 Not permitted as Excepted Quantity (Contd. on page 10)

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UN "Model Regulation":

UN1950, AEROSOLS, 2.1

## **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 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · 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 safety data sheet is mixed or processed with other materials, the data cannot be transferred without

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#### examination.

## · Relevant phrases

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

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

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 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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases, Hazard Category 1 Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

Flam. Liq. 2: Flammable liquids, Hazard Category 2

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

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

\* Data compared to the previous version altered.

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