



## MATERIAL SAFETY DATA SHEET

### Technical Information:

#### Electrolyte Gr-I, Gr-II and Gr-III

Electrolyte Gr-I, Gr-II & Gr-III is suitable for electro chemical process, which used for marking on metals like HSS steel & carbide etc. Electrolyte is a saline solution that conducts the etching current and provides the necessary chemicals to etch the metal and deposit the oxide for a constricting mark.

<b>COLOUR</b>	:	Colorless.
<b>HEALTH HAZARDS / ENVIRONMENTAL PROTECTION</b>	:	Please follow the information in the material safety data sheet.
<b>STORAGE</b>	:	12 Months (at 20-30° C) Protect against freezing.

### 1) IDENTIFICATION OF PRODUCT AND COMPANY :

<b>PRODUCT NAME</b>	:	Electrolyte for steel and Carbide.
<b>COMPANY</b>	:	<b>M/s. Yugma Impressions</b> Plot No. H 5 / 25 Industrial Zone, M.I.D.C Chikalhana Aurangabad - 431 210.( INDIA)
<b>PHONE NO.</b>	:	+91 240 3208236 / 2473730

### **Recommended Use:**

In the use of marking on metal / electro etching process.

### 2) INFORMATION :

The electrolyte is non-hazardous substance.

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### 3) HAZARD IDENTIFICATION OF THE PREPARATION :

Xi Irritant	:	
36/38	:	Irritating to eyes and skin.
43	:	May cause sensitization by skin contact.
52/53	:	Harmful to aquatic organisms, may cause long term adverse effect in the aquatic environment.

### 4) FIRST AID MEASURES :

After skin contact, clean thoroughly with soap and water. After eye contact (remove contact lenses) keep eyelid open, rinse under running water for at least 5 minutes. If irritation continues, seek medical advice. After ingestion, do not induce vomiting seek medical advice. If unconscious, do not administer anything orally. Place in stable side position and seek medical advice. If breathing is irregular or has stopped, apply artificial respiration.

### 5) ACCIDENTAL RELEASE MEASURES :

Collect with liquid absorbing material and proceed according to local waste disposal regulations.

### 6) HANDLING AND STORAGE :

Keep container tightly closed and in a cool and ventilated place. Avoid contact with eyes.

### 7) PERSONAL PROTECTION :

Protective gloves  
Protective goggles recommended.  
Respiratory filter (at increase concentrations)

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## 8) PHYSICAL AND CHEMICAL PROPERTIES :

Form	:	Liquid.
Colour	:	Colourless
Odour	:	Typical.
Ignition Temperature	:	200° C
Boiling Point	:	100° C
pH	:	1.3
Flash Point	:	150°
Material Composition	:	Sodium Chloride, Potassium Chloride, HCL, Nitric Acid, Ammonium Nitride, Chlorine Water, Other Salts and Acids.

## 9) TOXICOLOGICAL INFORMATION:

Repeated or prolonged contact causes local irritation of skin and mucous membranes, particularly the eyes. Inhalation of high concentration may cause dizziness.

## 10) ECOLOGICAL INFORMATION :

Do not enter the product in its original concentration into drains or open waters. Do not store at public waste disposal site.

## TRANSPORT INFORMATION :

ADR/RID: Class: not a dangerous good.

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

### 1.1 Product identifier

Trade name: Electrolyte AE 35

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Electrolytic marking technology for steels and chromed decorative items, low-corrosive

### 1.3 Details of the supplier of the safety data sheet

Company name: Schilling Marking Systems GmbH  
Street/POB-No.: In Grubenäcker 1  
State/city/postal code: D-78532 Tuttlingen  
World Wide Web: www.schilling-marking.de  
Email: info@schilling-marking.de  
Telephone: +49 (0)7461 9472-17  
Telefax: +49 (0)7461 9472-29  
Dept. responsible for information: Herr Andreas Schilling,  
Telephone: +49 (0)7461 9472-15, Email: info@schilling-marking.de

### 1.4 Emergency telephone number

Beratungsstelle für Vergiftungserscheinungen, Berlin,  
Telephone: +49 (0)30 19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

This preparation is classified as not hazardous.

### 2.2 Label elements

Labelling (67/548/EEC or 1999/45/EC)

R phrase(s) not applicable

S phrase(s) S 24/25 Avoid contact with skin and eyes.

### 2.3 Other hazards

Electrolytic vapours may form during the electrochemical process.

## SECTION 3: Composition/ information on ingredients

### 3.2 Mixtures

Chemical characterization (preparation)  
mixture of water/mineral salt and complexing agent, nitrite-free

Hazardous ingredients:

Ingredient	Chemical name	Content	classification
EINECS 229-347-8 CAS 6484-52-2	Ammonium nitrate	< 10 %	EU: O; R8, O; R9. CLP: Ox. Sol. 3; H272
EINECS 201-069-1 CAS 5949-29-1	Citric acid monohydrate	< 10 %	EU: Xi; R36. CLP: Eye Irrit. 2; H319.

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Ingredient	Chemical name	Content	classification
EINECS 200-661-7 CAS 67-63-0	Isopropyl alcohol	< 10 %	EU: F; R11. R67. Xi; R36. CLP: Eye Irrit. 2; H319. Flam. Liq. 2; H225. STOT SE 3; H336.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

After inhalation:	Provide fresh air. Seek medical attention if irritation persists. In case of irregular breathing or respiratory arrest provide artificial respiration.
In case of skin contact:	After contact with skin, wash immediately with soap and plenty of water. Remove contaminated clothing immediately and dispose of safely. Consult a doctor if skin irritation persists.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
After swallowing:	Do NOT induce vomiting. Rinse mouth and drink large quantities of water. Consult doctor afterwards.

### 4.2 Most important symptoms and effects, both acute and delayed

After eye contact: Reddening, pain.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:  
Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

### 5.2 Special hazards arising from the substance or mixture

Fires in the immediate vicinity may cause the development of dangerous vapours.  
In case of fire may be liberated: Nitrogen oxides (NOx), carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:  
In case of surrounding fires: Wear self-contained breathing apparatus.

Additional information: Hazchem-Code: -

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

### 6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.  
Thoroughly clean surrounding area.

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## 6.4 Reference to other sections

not required

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advises on safe handling: Open and handle container with care.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage:

Do not mix chemical with any other chemicals except water.  
Keep away from food, drink and animal feeding stuffs.

Storage class:

12 = Non-combustible liquids

### 7.3 Specific end use(s)

Electrolytic marking technology

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

CAS No.	Chemical name	Type	Limit value
67-63-0	Isopropyl alcohol	Great Britain: WEL-TWA	999 mg/m <sup>3</sup> ; 400 ppm
		Great Britain: WEL-STEL	1250 mg/m <sup>3</sup> ; 500 ppm

### 8.2 Exposure controls

#### Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A (= against vapours of organic substances) according to EN 141.

Hand protection:

Protective gloves according to EN 374.  
Glove material: Nitrile rubber.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection:

Tightly sealed safety glasses according to EN 166.

General protection and hygiene measures:

Avoid contact with skin and eyes. Do not breathe vapours.  
Work place should be equipped with a shower and an eye rinsing apparatus.

## SECTION 9: Physical and chemical properties

### 9.1 information on basic physical and chemical properties

Physical state:	liquid
Colour:	clear
Odour:	weak
Melting point / melting range:	-7 - 0 °C
Density:	at 20 °C: approx. 1,2 g/mL
pH value:	at 20 °C: 6,5-7,0
Water solubility:	at 20 °C: complete soluble

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## 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Product is stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Do not mix chemical with any other chemicals except water.

### 10.6 Hazardous decomposition products

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

After eye contact: Causes serious eye irritation.

#### Symptoms

After eye contact: Reddening, pain.

## SECTION 12: Ecological information

### 12.1 Toxicity

Water Hazard Class: 1 = slightly hazardous to water

### 12.2. Persistence and degradability

Further details: Information about Isopropyl alcohol: Easily bio-degradable.

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

not applicable

### 12.6 Other adverse effects

AOX reference: Product does not contain organically bound halogen (AOX).

General information: Do not allow to enter into ground-water, surface water or drains.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste key number 110198\* = Wastes from chemical surface treatment and coating of metals and other materials

\* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.

#### Contaminated packaging

Waste key number 150102 = Plastic packaging

Recommendation: Dispose of waste according to applicable legislation.

Non-contaminated packages may be recycled.

## SECTION 14: Transport information

### 14.1 UN number

not applicable

### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA: Not restricted

### 14.3 Transport hazard class(es)

not applicable

### 14.4 Packing group

not applicable

### 14.5 Environmental hazards

Marine Pollutant: unknown

### 14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

## SECTION 15: Regulatory information

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

#### National regulations - Great Britain

Hazchem-Code: -

#### National regulations - Germany

Storage class: 12 = Non-combustible liquids

Water Hazard Class: 1 = slightly hazardous to water

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## National regulations - USA

Hazard rating systems



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

## 15.2 Chemical Safety Assessment

No data available

## SECTION 16: Other information

### Further remarks

R phrase(s):

R 8 = Contact with combustible material may cause fire.

R 9 = Explosive when mixed with combustible material.

R 11 = Highly flammable

R 36 = Irritating to eyes.

R 67 = Vapours may cause drowsiness and dizziness.

Reason of change:

Changes in section 2+15: GHS

General revision

### Group that issues data sheet

Contact person:

see chapter 1, department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

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