



SAFETY DATA SHEET

ABC 189 CLEANER / CONDITIONER

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

TRADE NAME	ABC 189 CLEANER / CONDITIONER 500-270 (1L) & 500-270-1 (60ml)
Producer/importer	Mega Electronics Limited
Address	Mega House, Grip Industrial Estate, Linton, Cambridge
Country	ENGLAND
Postal code	CB21 4XN
Telephone	+44 (0) 1223 893900
Fax	+44 (0) 1223 893894

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	2-aminoetanol	205-483-3	141-43-5	10%	Xn,20-36/37/38
2	Secondary alcohol (C12-C14) ethoxylat		84133-50-6	5%	

Legend: T+ =Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+ =Extremely flammable, F=Highly flammable, N=Dangerous for the environment

INGREDIENT COMMENTS ; Aqueous solution of surfactants and 2 - aminoethanol

3. HAZARDS IDENTIFICATION

GENERAL This product does not require labelling.

4. FIRST AID MEASURES

GENERAL	Remove contaminated clothing as soon as possible
INHALATION	Remove person to fresh air. Get medical advise if large amounts have been inhaled or the patient experiences discomfort.
SKIN CONTACT	Remove contaminated clothing immediately. Flush skin immediately with large amounts of water.
EYE CONTACT	Flush with large amounts of water (open eyelids) for at least 15 minutes. Get medical advice.
INGESTION	Give plenty of water or milk to drink. If swallowed, seek medical advice immediately and show this container or label.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	Water, CO2, foam, dry chemical.
PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS	Use self-contained breathing apparatus if substance is involved in fire.
OTHER INFORMATION	Prevent release of fire control water to surface water or ground water.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Do not breathe vapour or spray
ENVIRONMENTAL PRECAUTIONS	Prevent discharge of significant quantities to drains. Spillage may be pumped up or absorbed with dry, inert material such as sand, earth etc.
METHODS FOR CLEANING UP	Mix the chemicals with an inert material (sand, vermiculite, etc) and place in a suitable container. Flush with large amounts of water to clean the area

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS Do not store near acids. Containers must be kept tightly closed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredient name	Cas nr.	Interval	ppm	mg/m3	Year	Notes
2-aminoetanol	141-43-5	8 h	3,0	8,0	2000	H

RESPIRATORY PROTECTION Respiratory protection may be necessary

EYE PROTECTION Wear goggles or face shield if there is a possibility of eye contact.

HAND PROTECTION Use suitable protective gloves if skin contact is possible.

PROTECTIVE CLOTHING Wear apron

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solution.		
Colour:	Colourless.		
Odour:	Characteristic.		
Solubility:	Completely soluble in water.		
Melting point/range:	ca -10 C	Density:	1,05g/cm3
Expl. limit LEL-UEL%:	--	Solubility in water:	100%
Vapour pressure:	--	Saturation conc.:	--
Decomposition temp.:	--	Rel. dens. sat. air (air=1):	--
pH solution:	9	Boiling point/range:	ca 120 C
Flash point:	--	pH concentrate:	>10
Molar weight:	--	Viscosity:	--

10. STABILITY AND REACTIVITY

MATERIALS TO AVOID

May form explosive gases in contact with: inorganic acid chlorides Exothermic reaction with strong acids

11. TOXICOLOGICAL INFORMATION

INHALATION Respiratory tract irritation

SKIN CONTACT Chemical burns. May cause skin irritation and / or dermatitis.

EYE CONTACT Highly irritating to the eyes.

INGESTION Burning sensation in the mouth and throat

12. ECOLOGICAL INFORMATION

DEGRADABILITY Readily biodegradable

ECOTOXICITY The product contains monoethanolamin which has following values:
LC50 (fish, mg/litre): 150 mg/l /96h LC50 (Daphnia, mg/litre / 24 hours): 65 mg/l

OTHER INFORMATION The product is alkaline and will cause a local increase in pH when discharged to sea or lake.

13. DISPOSAL CONSIDERATIONS

GENERAL REGULATIONS Dispose of in compliance with local regulations. Contact supplier for disposal information.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

OTHER INFORMATION Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

15. REGULATORY INFORMATION

COMPOSITION: 2-aminoetanol (10%), Secondary alcohol (C12-C14) ethoxylat (5%)

S-PHRASES S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-37/39 Wear suitable gloves and eye/face protection.

16. OTHER INFORMATION

INFORMATION SOURCES:

The safety data sheet has been prepared on the basis of information given by raw materials suppliers

ISSUED: 10/12/02

Updated 02/08

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE - HOWEVER NO GUARANTEE OR WARRANTY EXPRESSED OR IMPLIED IS GIVEN



SAFETY DATA SHEET

ABC 581C SALT REMOVER

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

TRADE NAME	ABC 581C SALT REMOVER 500-275 (100ml)
Producer/importer	Mega Electronics Limited
Address	Mega House, Grip Industrial Estate, Linton, Cambridge
Country	ENGLAND
Postal code	CB21 4XN
Telephone	+44 (0) 1223 893900
Fax	+44 (0) 1223 893894

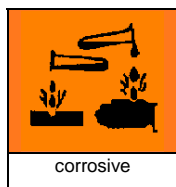
2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	Sodium Hydroxide	215-185-5	1310-73-2	2-5%	C,35
2	Copper sulphate	231-847-6	7758-98-7	<1%	Xn,22-36/38, 50/53

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

3. HAZARDS IDENTIFICATION

GENERAL
Causes burns



ENVIRONMENT
Harmful to aquatic organisms,
may cause long-term adverse
effects in the aquatic
environment.

4. FIRST AID MEASURES

INHALATION	Remove person to fresh air. Rinse mouth and nose with water. Seek medical advice.
SKIN CONTACT	Remove contaminated clothing immediately. Flush skin immediately with large amounts of water.
EYE CONTACT	Flush with large amounts of water (open eyelids) for at least 15 minutes. Get medical advice.
INGESTION	Give plenty of water or milk to drink. DO NOT INDUCE VOMITING ! seek medical advice immediately

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	All types
FIRE AND EXPLOSION HAZARDS	Does not burn. May form explosive gases in contact with: Trichloroethylene and methylchloride. In contact with certain metals generate hydrogen. Risk of explosion.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Use the specified protective equipment.
ENVIRONMENTAL PRECAUTIONS	Prevent discharge of significant quantities to drains. Spillage may be pumped up or absorbed with dry, inert material such as sand, earth etc.
METHODS FOR CLEANING UP	Mix the chemicals with an inert material (sand, vermiculite, etc.) and place in a suitable container. Flush with large amounts of water to clean the area.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS	Spillage makes floor and tools slippery.
HANDLING ADVICE:	Use personal protective equipment as specified in Section 8. Eyewash facilities and emergency shower must be available at the workplace.
STORAGE:	Do not store near acids. Containers must be kept tightly closed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredient name	CAS No.	Interval	Ppm	Mg ./ m ³	Year	Notes
Sodium Hydroxide	1310-73-2	15 mins	0.0	2.0	2000	

RESPIRATORY PROTECTION: Use respiratory protection if gas / vapour is formed.

EYE PROTECTION Wear goggles or face shield if there is a possibility of eye contact.

HAND PROTECTION Use suitable protective gloves if skin contact is possible.

PROTECTIVE CLOTHING Wear apron and boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.		
Colour:	Dark Blue		
Odour:	No characteristic odour.		
Solubility:	Completely miscible with water		
Melting point/range:	Ca - 10 C	Density:	1.1 g /cm ³
Expl. limit LEL-UEL%:		Solubility in water:	100%
Vapour pressure:		Saturation conc.:	
Decomposition temp.:		Rel. dens. sat. air (air=1):	
pH solution:	>7	Boiling point/range:	Ca 120C
Flash point:		pH concentrate:	Ca 14

10. STABILITY AND REACTIVITY

MATERIALS TO AVOID Strong basic solution, react with aluminium, lead, tin and zinc with risk for generation of hydrogen gas may form explosive gases in contact with : Trichloroethylene and methylchloride..

11. TOXICOLOGICAL INFORMATION

INHALATION Respiratory tract irritation, coughing, breathing difficulties.

SKIN CONTACT Severe skin burns. Chemical burns.

EYE CONTACT May cause severe eye damage and temporary blindness.

INGESTION Causes burns if swallowed. Causes burning sensation in the mouth, throat and esophagus. May cause serious permanent damage

12. ECOLOGICAL INFORMATION

DEGRADABILITY Hydrolyze in water to hydrogen, sulphate and copper ion.

ACCUMALATION Bioaccumulation: (apply to copper) BCF 17000 plancton (calculated) / 360-9300 fitoplancton.

ECOTOXICITY Hydrolyze in water to hydrogen, sulphate and copper ion. Copper ions are toxic to fish, bacteria, algae and protozoans at concentrations below 1mg / litre. Fish (C.auratus): Toxic at 0.01 mg/litre. Mussels: Lethal at 0.55mg / litre/ 12 hours. Oysters: Toxic at 0.1 mg/litre

OTHER EFFECTS Discharge to water will increase pH, which may harm fish and aquatic organisms near the discharge point. pH 9 is toxic for fish.

13. DISPOSAL CONSIDERATIONS

GENERAL REGULATIONS Dispose of in compliance with local regulations. Contact supplier for disposal information.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

UN No: 3266

Proper shipping name: Corrosive liquid, basic inorganic n.o.s.

ADR.RID: Class: 8, 47(c) **Packing group:** III **Not translated:** 8 **Hazard id:** 80

IMDG: Class: 8, **Packing group:** III **Sub Risk:** EMS: 8-15 **Marine Pollutant:** MP

IATA Class: 8, **Packing group:** III **Sub Risk:** Label:

15. REGULATORY INFORMATION

Classified.: corrosive



COMPOSITION
Sodium Hydroxide (2-5%)
Copper sulphate (<1%)

R-PHRASES R-34 Causes burns.R-52-53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S-37/39 Wear suitable gloves and eye/face protection.S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) S61: Avoid release to the environment

16. OTHER INFORMATION

INFORMATION SOURCES:

The safety data sheet has been prepared on the basis of information given by raw materials suppliers

ISSUED: 10/04/02 updated 02/08

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE - HOWEVER NO GUARANTEE OR WARRANTY EXPRESSED OR IMPLIED IS GIVEN



SAFETY DATA SHEET

ABC 581L SALT REMOVER

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

TRADE NAME	ABC 581L SALT REMOVER 500-273 (1L)
Producer/importer	Mega Electronics Limited
Address	Mega House, Grip Industrial Estate, Linton, Cambridge
Country	ENGLAND
Postal code	CB21 4XN
Telephone	+44 (0) 1223 893900
Fax	+44 (0) 1223 893894

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	Potassium Carbonate		584-08-7	50%	Xn,22-37/38

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

3. HAZARDS IDENTIFICATION



4. FIRST AID MEASURES

GENERAL	Remove contaminated clothing as soon as possible
INHALATION	Remove person to fresh air. Get medical advice if large amounts have been inhaled or the patient experiences discomfort.
SKIN CONTACT	Remove contaminated clothing immediately. Flush skin immediately with large amounts of water.
EYE CONTACT	Flush with large amounts of water (open eyelids) for at least 15 minutes. Get medical advice.
INGESTION	Give plenty of water or milk to drink. If swallowed, seek medical advice immediately and show this container or label.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	Water, CO2, foam, dry chemical.
PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS	Use self-contained breathing apparatus if substance is involved in fire.
OTHER INFORMATION	N/A

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Use the specified protective equipment.
ENVIRONMENTAL PRECAUTIONS	Prevent discharge of significant quantities to drains.
METHODS FOR CLEANING UP	Flush with large amounts of water to clean the area.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS	Not relevant.
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8. EXPOSURE CONTROL/PERSONAL PROTECTION

EYE PROTECTION	Wear goggles or face shield if there is a possibility of eye contact.
HAND PROTECTION	Use suitable protective gloves if skin contact is possible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.		
Colour:	Colourless.		
Odour:	Alkaline.		
Solubility:	Completely miscible with water		
Melting point/range:	Density:	1.4	
Expl. limit LEL-UEL%:	Solubility in water:		
Vapour pressure:	Saturation conc.:		
Decomposition temp.:	Rel. dens. sat. air (air=1):		
pH solution:	>7	Boiling point/range:	
Flash point:	pH concentrate:		>7

10. STABILITY AND REACTIVITY

STABILITY Also stable when stored at high temperatures.

MATERIALS TO AVOID Reacts violently with acids.

11. TOXICOLOGICAL INFORMATION

Acute oral tox.	LD 50 (rats)	1870 mg/kg
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INHALATION Inhalation of vapours in high concentration may cause irritation of respiratory system.

SKIN CONTACT Drying and cracking of skin.

EYE CONTACT Irritating to the eyes.

INGESTION Ingestion causes burns to the upper digestive and respiratory tracts. Ingestion may cause abdominal pains and vomiting. Harmful if swallowed.

12. ECOLOGICAL INFORMATION

DEGRADABILITY not applicable

OTHER EFFECTS Bases cause increased pH in the water, this may kill fish.

13. DISPOSAL CONSIDERATIONS

GENERAL REGULATIONS Dispose of in compliance with local regulations. Contact supplier for disposal information.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

OTHER INFORMATION Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

15. REGULATORY INFORMATION

Classified.: Harmful



R-PHRASES R-22 Harmful if swallowed.R-36/38 Irritating to eyes and skin.

S-PHRASES S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S-37/39 Wear suitable gloves and eye/face protection.S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where

16. OTHER INFORMATION

INFORMATION SOURCES:

The safety data sheet has been prepared on the basis of information given by raw materials suppliers

ISSUED: 10/04/02

Updated 02/08

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SAFETY DATA SHEET

ABC 581P SALT REMOVER

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

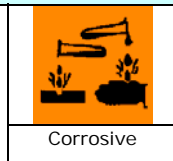
TRADE NAME	ABC 581P SALT REMOVER 500-274 (250ml)
Producer/importer	Mega Electronics Limited
Address	Mega House, Grip Industrial Estate, Linton, Cambridge
Country	ENGLAND
Postal code	CB21 4XN
Telephone	+44 (0) 1223 893900
Fax	+44 (0) 1223 893894

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	Natriumhydroxid	215-185-5	1310-73-2	20-50%	C,35

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

3. HAZARDS IDENTIFICATION



GENERAL Causes severe burns

4. FIRST AID MEASURES

INHALATION	Remove person to fresh air. Rinse mouth and nose with water. Seek medical advice.
SKIN CONTACT	Remove contaminated clothing immediately. Flush skin immediately with large amounts of water.
EYE CONTACT	Flush with large amounts of water (open eyelids) for at least 15 minutes.
INGESTION	Give plenty of water or milk to drink. DO NOT INDUCE VOMITING ! Seek medical advice immediately

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	All types.
FIRE & EXPLOSION HAZARDS	Does not burn. May form explosive gases in contact with Trichloroethylene and methylchloride In contact with certain metals generate hydrogen. Risk for explosion.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Use protective equipment and keep unauthorized personnel away.
ENVIRONMENTAL PRECAUTIONS	Prevent discharge of significant quantities to drains. Spillage may be pumped up or absorbed with dry, inert material such as sand, earth etc.
METHODS FOR CLEANING UP	Mix the chemicals with an inert material (sand, vermiculite, etc) and place in a suitable container. Flush with large amounts of water to clean the area.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS	Spillage makes floors and tools slippery
HANDLING ADVISE	Use personal protective equipment as specified n section 8. Eyewash facilities and emergency shower must be available at the workplace.
STORAGE	Do not store near acids. Containers must be kept tightly closed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredient name	Cas nr.	Interval	ppm	mg/m3	Year	Notes
Natriumhydroxid	1310-73-2	15 min.	0,0	2,0	2000	

RESPIRATORY PROTECTION Use respiratory protection if gas/vapour is formed.
EYE PROTECTION Wear goggles or face shield if there is a possibility of eye contact.
HAND PROTECTION Use suitable protective gloves if skin contact is possible.
PROTECTIVE CLOTHING Wear apron & boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solution.		
Colour:	Colourless.		
Odour:	No Characteristic odour		
Solubility:	Completely soluble in water.		
Melting point/range:	ca -10 C	Density:	1,3g/cm3
Expl. limit LEL-UEL%:	--	Solubility in water:	100%
Vapour pressure:	--	Saturation conc.:	--
Decomposition temp.:	--	Rel. dens. sat. air (air=1):	--
pH solution:	<7	Boiling point/range:	ca 120 C
Flash point:	--	pH concentrate:	ca 14
Molar weight:	--	Viscosity:	--

10. STABILITY AND REACTIVITY

MATERIALS TO AVOID
Strong basic solution, react with aluminium, lead, tin and zinc with risk for generation of hydrogen gas may form explosive gases in contact with: Trichloroethylene and methylchloride

11. TOXICOLOGICAL INFORMATION

INHALATION Respiratory tract irritation, coughing, breathing difficulties.
SKIN CONTACT Severe skin burns, Chemical burns
EYE CONTACT May cause severe eye damage and temporary blindness.
INGESTION Causes burns if swallowed. Causes burning sensation in the mouth, throat and oesophagus. May cause serious permanent damage.

12. ECOLOGICAL INFORMATION

ACCUMULATION Does not bio accumulate.
ECOTOXICITY Discharge to water will increase pH, which may harm fish and other aquatic organisms near the discharge point. pH 9 is toxic for fish. LC 50 48h, fish (Lemponis macrochirus) =99 mg/l
LC50 96h, fish (Gambusia affinis): 125 mg/l

13. DISPOSAL CONSIDERATIONS

GENERAL REGULATIONS Dispose of in compliance with local regulations. Contact supplier for disposal information.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

UN No.: 1824 **PROPER SHIPPING NAME** Sodium hydroxide solution
ADR/RID
Class: 8, 42(b) **Packing group:**
Not Translated 8
Hazard Id: 80
IMDG
Class: 8 **Packing group:** II
Sub Risk: **EMS:** 8-06
Marine Pollutant: n
IATA
Class: 8 **Packing group:** II
Sub Risk:
Label:

15. REGULATORY INFORMATION

COMPOSITION: 2-aminoetanol (10%), Secondary alcohol (C12-C14) ethoxylat (5%)
R-PHRASES R34 Causes Burns.
S-PHRASES S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-37/39 Wear suitable gloves and eye/face protection.

16. OTHER INFORMATION

INFORMATION SOURCES:

The safety data sheet has been prepared on the basis of information given by raw materials suppliers

ISSUED: 10/12/02 Updated 02/08

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE - HOWEVER NO GUARANTEE OR WARRANTY EXPRESSED OR IMPLIED IS GIVEN



SAFETY DATA SHEET

ABC 889A PREDIP / CATALYST

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

TRADE NAME	ABC 889A PREDIP/CATALYST PART A 500-271 (5L) & 500-271-1 (4L)
Producer/importer	Mega Electronics Limited
Address	Mega House, Grip Industrial Estate, Linton, Cambridge
Country	ENGLAND
Postal code	CB21 4XN
Telephone	+44 (0) 1223 893900
Fax	+44 (0) 1223 893894

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	Sodium Chloride	231-598-3	7647-14-5	25%	
2	Hydrochloric acid	231-595-7	7647-01-0	<1%	C,34-37

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

3. HAZARDS IDENTIFICATION

GENERAL The product does not require labelling.

4. FIRST AID MEASURES

GENERAL Remove contaminated clothing as soon as possible

INHALATION Remove person to fresh air. Get medical advise if large amounts have been inhaled or the patient experiences discomfort.

SKIN CONTACT Remove contaminated clothing immediately. Flush skin immediately with large amounts of water.

EYE CONTACT Flush with large amounts of water (open eyelids) for at least 15 minutes. Get medical advice.

INGESTION Give plenty of water or milk to drink. If swallowed, seek medical advice immediately and show this container or label.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA Water, CO2, foam, dry chemical.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS Use self-contained breathing apparatus if substance is involved in fire.

OTHER INFORMATION Prevent release of fire control water to surface water or ground water.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS Use the specified protective equipment.

ENVIRONMENTAL PRECAUTIONS Prevent discharge of significant quantities to drains.

METHODS FOR CLEANING UP Flush with large amounts of water to clean the area.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS Not relevant.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

EYE PROTECTION Wear goggles or face shield if there is a possibility of eye contact.

HAND PROTECTION Use suitable protective gloves if skin contact is possible.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.		
Colour:	Colourless.		
Odour:	Aromatic.		
Solubility:	Completely miscible with water		
Melting point/range:	Density:	1.18	
Expl. limit LEL-UEL%:	Solubility in water:		
Vapour pressure:	Saturation conc.:		
Decomposition temp.:	Rel. dens. sat. air (air=1):		
pH solution:	3-7	Boiling point/range:	
Flash point:		pH concentrate:	3

10. STABILITY AND REACTIVITY

STABILITY	Also stable when stored at high temperatures.
MATERIALS TO AVOID	Strong oxidizing agent. Strong acids.
HAZARDOUS DECOMPOSITION PRODUCTS	Hydrogen chloride gas. Sodium oxides

11. TOXICOLOGICAL INFORMATION

INHALATION	Inhalation of vapours in high concentration may cause irritation of respiratory system.
SKIN CONTACT	May cause skin irritation in susceptible persons
EYE CONTACT	Irritating to the eyes.
INGESTION	May cause nausea, vomiting.

12. ECOLOGICAL INFORMATION

DEGRADABILITY	not applicable
ECOTOXICITY	Not known negative effects on the aquatic environment.

13. DISPOSAL CONSIDERATIONS

GENERAL REGULATIONS Dispose of in compliance with local regulations. Contact supplier for disposal information.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

OTHER INFORMATION Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

15. REGULATORY INFORMATION

COMPOSITION : Sodium Chloride (25%)

S-PHRASES **S-26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-37/39 Wear suitable gloves and eye/face protection.
S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

16. OTHER INFORMATION

INFORMATION SOURCES:

The safety data sheet has been prepared on the basis of information given by raw materials suppliers

ISSUED: 04/10/02

Updated 02/08

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SAFETY DATA SHEET

ABC 889A PREDIP / CATALYST

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

TRADE NAME ABC 889B CATALYST PART B 500-272 (200ml) & 500-272-1 (100ml)

Producer/importer Mega Electronics Limited

Address Mega House, Grip Industrial Estate,
Linton, Cambridge

Country ENGLAND

Postal code CB21 4XN

Telephone +44 (0) 1223 893900

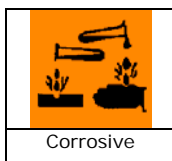
Fax +44 (0) 1223 893894

2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	Tin Chloride		10025-69-1	50%	C,22-34
2	Hydrochloric acid	231-595-7	7647-01-0	10%	C,34-37
3	Palladium Chloride		7647-10-1	<1%	C,34

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

3. HAZARDS IDENTIFICATION



GENERAL

Causes severe burns. Irritating to respiratory system

4. FIRST AID MEASURES

INHALATION	Fresh air. Rinse mouth and nose with water. Seek medical advice
SKIN CONTACT	Remove contaminated clothing immediately. Flush skin immediately with large amounts of water. Chemical burns must be treated by a doctor.
EYE CONTACT	Flush with large amounts of water (open eyelids) for at least 15 minutes. Get medical advice.
INGESTION	Drink a couple of glasses of water or milk. DO NOT INDUCE VOMITING! Get medical advice immediately

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	Use extinguishing media appropriate for surrounding fire.
FIRE AND EXPLOSION HAZARDS:	Contact with certain metals and water/moist air causes formation of hydrogen gas, which may form explosive mixtures with air.
OTHER INFORMATION	Containers close to fire should be removed immediately or cooled with water.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Use protective equipment and keep unauthorized personnel away
ENVIRONMENTAL PRECAUTIONS	Do not allow spill to enter sewers or watercourses. Contain spills with sand, earth etc. and collect in appropriate containers according to national regulations. DO NOT USE SAWDUST.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS	Change clothing when finished handling the product. Shower in connection with workplace. Mechanical ventilation or local exhaust ventilation may be required.
STORAGE	Store in a cool dry place

8. EXPOSURE CONTROL/PERSONAL PROTECTION

RESPIRATORY PROTECTION	Full-face mask respirator with cartridge B (grey, inorganic gases/vapours). may be necessary
EYE PROTECTION	Wear eye protection if there is a possibility of direct contact or splashes
HAND PROTECTION	Always use gloves.
PROTECTIVE CLOTHING	Wear apron and boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Aqueous solution.		
Colour:	Dark brown.		
Odour:			
Solubility:	Miscible with water.		
Melting point/range:	Density:	1.44	
Expl. Limit LEL-UEL%:	Solubility in water:	100%	
Vapour pressure:	Saturation conc.:		
Decomposition temp.:	Rel. dens. Sat. air (air=1):		
Ph solution:	<1	Boiling point/range:	
Flash point:		Ph concentrate:	<1

10. STABILITY AND REACTIVITY

STABILITY Attacks metals, wood and textile.

11. TOXICOLOGICAL INFORMATION

INHALATION	Inhalation may cause: Smarting in nose, throat and mouth.
SKIN CONTACT	May cause serious burns to the skin.
EYE CONTACT	May cause serious damage
INGESTION	May cause chemical burns to mouth and throat.

12. ECOLOGICAL INFORMATION

DEGRADABILITY	Not applicable
OTHER EFFECTS	Product discharge to water will cause more acidic water, which may harm fish and other organisms near the discharge site.
OTHER INFORMATION	Ecotoxicological data are not known for this product. Do not discharge product to sewer or drains

13. DISPOSAL CONSIDERATIONS

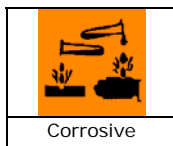
GENERAL REGULATIONS Treat as hazardous waste. If spill or waste can not be treated by your own, it must be disposed of an approved waste treatment facility

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

UN No.: 3264

Classified.:



PROPER SHIPPING NAME: Corrosive liquid, n.o.s.

ADR/RID

Class: 8,17©
Not Translated 8

Packing group: III

Hazard Id: 80

IMDG

Class: 8

Packing group: III

Sub Risk:

EMS: 8-15

Marine Pollutant: Nej

IATA

Class: 8

Packing group: III

Sub Risk:

OTHER INFORMATION Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

COMPOSITION: Tin Chloride (50%), Hydrochloric acid (10%), Palladium Chloride (<1%)

R-PHRASES R-22 Harmful if swallowed. R-34 – Causes burns

S-PHRASES S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

16. OTHER INFORMATION: N/A

ISSUED: 25/09/02

Updated 02/08



SAFETY DATA SHEET

ABC 972 BRIGHTENER

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

TRADE NAME	ABC 972 BRIGHTENER 500-146-1 (500ml)
Producer/importer	Mega Electronics Limited
Address	Mega House, Grip Industrial Estate, Linton, Cambridge
Country	ENGLAND
Postal code	CB21 4XN
Telephone	+44 (0) 1223 893900
Fax	+44 (0) 1223 893894

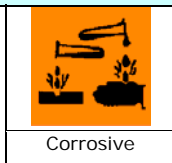
2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	SULPHURIC ACID	231-639-5	7664-93-9	1- 5%	C, R35
2	COPPER SULPHATE PENTAHYDRATE	231-847-6	7758-99-8	<1	Xn: R22 Xi: R36/38 N: R50/53

Legend: T+ =Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+ =Extremely flammable, F=Highly flammable, N=Dangerous for the environment

COMPOSITION COMMENTS: Contains surface active agents.

3. HAZARDS IDENTIFICATION



Corrosive



Dangerous for the Environment

ENVIRONMENT

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GENERAL Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

GENERAL INFORMATION Remove affected person from source of contamination. Get medical attention if any discomfort continues.

INHALATION Move the exposed person to fresh air at once. Get medical attention if any discomfort continues

SKIN CONTACT Remove affected person from source of contamination. Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if irritation persists after washing.

EYE CONTACT Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

INGESTION Rinse mouth thoroughly Drink plenty of water. Get medical attention if any discomfort continues.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA Use fire-extinguishing media appropriate for surrounding materials.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS Do not discharge into drains, water courses or onto the ground.

METHODS FOR CLEANING UP DO NOT touch spilled material. Wear necessary protective equipment.

Provide ventilation and confine spill. Do not allow run-off into sewer. Absorb with inert damp, non-combustible material, then flush area with water. Inform Authorities if large amounts are involved.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS Store in tightly closed original container in a dry, cool and well-ventilated place.
Store in closed original container at temperatures between 5°C and 30°C

STORAGE Chemical Storage.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredient name						
COPPER SULPHATE PENTAHYDRATE	Std	LT- ppm	LT – mg/m3 1(Cu) mg/m3	ST –ppm	ST – mg/m3 2(Cu) mg/m3	
SULPHURIC ACID	OES		1 mg/m3			

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

No particular ventilation requirements.

HAND PROTECTION

Use suitable protective gloves if risk of skin contact.

EYE PROTECTION

If risk of splashing, wear safety goggles or face shield.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA!

Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Clear Liquid.		
Colour:	Blue.		
Odour:	--		
Solubility:	soluble in water.		
Melting point/range:	--	Relative Density:	1.02 @ 20°C
Expl. limit LEL-UEL%:	--	Solubility in water:	--
Vapour pressure:	--	Saturation conc.:	--
Decomposition temp.:	--	Rel. dens. sat. air (air=1):	--
pH solution:	--	Boiling point/range:	--
Flash point:	--	pH Value:	1
Molar weight:	--	Viscosity:	--

10. STABILITY AND REACTIVITY

Stable under normal temperature conditions.

11. TOXICOLOGICAL INFORMATION

HEALTH WARNINGS No specific health warnings noted.

12. ECOLOGICAL INFORMATION

ECOTOXICITY This product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

GENERAL This product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID)

MARINE POLLUTANT No

15. REGULATORY INFORMATION

R-PHRASES R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES S60 This material and its container must be disposed of as hazardous waste. UK REGULATORY

REFERENCES Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations.

STATUTORY INSTRUMENTS Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

GUIDANCE NOTES Workplace Exposure Limits EH40.

16. OTHER INFORMATION

INFORMATION SOURCES:

Dangerous Properties of Industrial Chemicals, N.Sax, Croner's: Dangerous Substances. Croner's: Emergency Spillage Guide. Croner's: Substances Hazardous to Health. Material Safety Data Sheet, Misc. manufacturers.

REV. NO./REPL. SDS GENERATED 2

RISK PHRASES IN FULL

R22 Harmful if swallowed.

R35 Causes severe burns.

R36/38 Irritating to eyes and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

REVISION DATE: 03/07/2007

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE - HOWEVER NO GUARANTEE OR WARRANTY EXPRESSED OR IMPLIED IS GIVEN



SAFETY DATA SHEET

ABC 972 LEVELLER

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

TRADE NAME ABC 972 LEVELLER 500-147-1 (1 Litre)

Producer/importer Mega Electronics Limited
Address Mega House, Grip Industrial Estate,
Linton, Cambridge
Country ENGLAND
Postal code CB21 4XN
Telephone +44 (0) 1223 893900
Fax +44 (0) 1223 893894

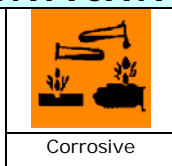
2. COMPOSITION/INFORMATION ON INGREDIENTS

No	Ingredient name	EC No.	CAS No.	Conc. (wt%)	Classification
1	SULPHURIC ACID	231-639-5	7664-93-9	1- 5%	C,R35
2	COPPER SULPHATE PENTAHYDRATE	231-847-6	7758-99-8	<1	Xn: R22 Xi: R36/38 N: R50/53

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

COMPOSITION COMMENTS: Contains surface active agents.

3. HAZARDS IDENTIFICATION



Corrosive



Dangerous for the Environment

ENVIRONMENT

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GENERAL Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

GENERAL INFORMATION Remove affected person from source of contamination. Get medical attention if any discomfort continues.

INHALATION Move the exposed person to fresh air at once. Get medical attention if any discomfort continues

SKIN CONTACT Remove affected person from source of contamination. Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if irritation persists after washing.

EYE CONTACT Remove victim immediately from source of exposure. Make sure to remove any contact lenses from

the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

INGESTION Rinse mouth thoroughly Drink plenty of water. Get medical attention if any discomfort continues.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA Use fire-extinguishing media appropriate for surrounding materials.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS Do not discharge into drains, water courses or onto the ground.

METHODS FOR CLEANING UP DO NOT touch spilled material. Wear necessary protective equipment. Provide ventilation and confine spill. Do not allow run-off into sewer. Absorb with inert damp, non-combustible material, then flush area with water. Inform Authorities if large amounts are involved.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS Store in tightly closed original container in a dry, cool and well-ventilated place. Store in closed original container at temperatures between 5°C and 30°C

STORAGE Chemical Storage.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredient name						
COPPER SULPHATE PENTAHYDRATE	Std	LT- ppm	LT – mg/m3 1(Cu) mg/m3	ST –ppm	ST – mg/m3 2(Cu) mg/m3	
SULPHURIC ACID	OES		1 mg/m3			

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

No particular ventilation requirements.

HAND PROTECTION

Use suitable protective gloves if risk of skin contact.

EYE PROTECTION

If risk of splashing, wear safety goggles or face shield.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA!

Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Clear Liquid.		
Colour:	Blue.		
Odour:	--		
Solubility:	soluble in water.		
Melting point/range:	--	Relative Density:	1.02 @ 20°C
Expl. limit LEL-UEL%:	--	Solubility in water:	--
Vapour pressure:	--	Saturation conc.:	--
Decomposition temp.:	--	Rel. dens. sat. air (air=1):	--
pH solution:	--	Boiling point/range:	--
Flash point:	--	pH Value:	1
Molar weight:	--	Viscosity:	--

10. STABILITY AND REACTIVITY

Stable under normal temperature conditions.

11. TOXICOLOGICAL INFORMATION

HEALTH WARNINGS No specific health warnings noted.

12. ECOLOGICAL INFORMATION

ECOTOXICITY This product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods: Yes No N/A

GENERAL This product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID)

MARINE POLLUTANT No

15. REGULATORY INFORMATION

R-PHRASES R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES S60 This material and its container must be disposed of as hazardous waste.UK REGULATORY

REFERENCES Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

GUIDANCE NOTES Workplace Exposure Limits EH40.

16. OTHER INFORMATION

INFORMATION SOURCES:

Dangerous Properties of Industrial Chemicals, N.Sax, Croner's: Dangerous Substances. Croner's: Emergency Spillage Guide. Croner's: Substances Hazardous to Health. Material Safety Data Sheet, Misc. manufacturers.

REV. NO./REPL. SDS GENERATED 2

RISK PHRASES IN FULL

R22 Harmful if swallowed.

R35 Causes severe burns.

R36/38 Irritating to eyes and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

REVISION DATE: 03/07/2007

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE - HOWEVER NO GUARANTEE OR WARRANTY EXPRESSED OR IMPLIED IS GIVEN

SECTION 1 PRODUCT IDENTIFICATION AND MANUFACTURE

NAME: ABC COPPER PLATING SOLUTION 9712
PART NO: 500-147-2 - 25 litres

MANUFACTURER'S/SUPPLIERS NAME, REGISTERED ADDRESS AND EMERGENCY TEL NO:

MEGA ELECTRONICS LTD., TELEPHONE: +0044 01223 893900
 THE GRIP INDUSTRIAL ESTATE,
 LINTON, CAMBRIDGE. ENGLAND, CB21 4XN.

ORGANISATIONS NAME & ADDRESS AT WHICH MANUFACTURED

PMD (UK) Limited
 Broad Lane, Coventry, CV5 7AY Tel: 024 764 66691

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

		% by WT	Hazard	R,PHRASE NO.
SULPHURIC ACID	231-639-5	15 %	C	35
COPPER SULPHATE	231-847-6	7%	Xn	22,
PENTAHYDRATE			Xi	36/38
			N	50/53

3. HAZARDS IDENTIFICATION:

Causes severe burns. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES:

GENERAL: Remove affected person from source of contamination. Get medical attention

INHALATION: Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air

INGESTION: DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Drink plenty of water. Get medical attention immediately! Provide rest, warmth and fresh air

SKIN: Remove affected person from source of contamination. Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention promptly if symptoms occur after washing

EYE: Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

5. FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA:

Use extinguishing media appropriate for surrounding fire.

UNUSUAL FIRE & EXPLOSION HAZARDS:

May develop highly toxic or corrosive fumes if heated.

6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety sheet.

SPILL CLEANUP METHODS:

DO NOT touch spilled material. Wear necessary protective equipment. Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb with inert, damp, non-combustible material, then flush area with water. Inform Authorities if large amounts are involved

7. HANDLING AND STORAGE:

USAGE PRECAUTIONS: Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Eye wash facilities and emergency shower must be available when handling this product

STORAGE PRECAUTIONS: Store in tightly closed original container in a dry, cool and well-ventilated place. Store in closed original container at temperatures between 5°C and 30°C

STORAGE CRITERIA: Chemical storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

COPPER SULPHATE PENTAHYDRATE

Std	Lt-ppm	LT – mg/M3	ST – ppm	ST – mg/m3
		1 (Cu) mg /m3		2 (Cu) mg / m3

PROTECTIVE EQUIPMENT:

GLOVES, SPECTACLES, FULL FACE SHIELD

PROCESS CONDITIONS: Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station

RESPIRATORY EQUIPMENT: Respiratory protection must be used if air concentration exceeds acceptable level

HAND PROTECTION: Use protective gloves.

EYE PROTECTION: Use approved safety goggles or face shield.

OTHER PROTECTION: Wear appropriate clothing to prevent any possibility of skin contact

HYGIENIC MEASURES: DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. No eating or drinking while working with this material

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: Clear. Liquid **COLOUR:** Blue.

SOLUBILITY DESCRIPTION: Soluble in water.

pH-VALUE, CONC. SOLUTION: <1

10. STABILITY AND REACTIVITY:

STABILITY: Stable under normal temperature conditions.

CONDITIONS TO AVOID: Avoid contact with: Strong alkalis.

HAZARDOUS DECOMP. PRODUCTS:

Toxic gases/vapours/fumes of: Sulphurous gases (SOx).

11. TOXICOLOGICAL INFORMATION:

INHALATION: May cause irritation to the respiratory system

INGESTION: May cause chemical burns to mouth and throat

SKIN CONTACT: Causes burns.

EYE CONTACT: Causes burns. Risk of serious damage to eyes.

HEALTH WARNINGS: Swallowing concentrated chemical may cause severe internal injury.

RESPIRATORY SYSTEM. Serious damage to the lining of nose, throat and lungs

12. ECOLOGICAL INFORMATION:

ECOTOXICITY: This product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

MOBILITY: The product is soluble in water.

ACUTE FISH TOXICITY: Concentrations which give low pH maybe fatal to fish and aquatic organisms.

Name: SULPHURIC ACID

Mobility: This product is soluble in water.

Bioaccumulation potential. Will not bio-accumulate

Name: COPPER SULPHATE PENTAHYDRATE

Ecotoxicity: The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

LC 50, 96 Hrs, Fish mg/l 0.39

Mobility: This product is soluble in water.

Acute Fish Toxicity: Very toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHODS: Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION:

LABEL FOR CONVEYANCE:

CORROSIVE SUBSTANCE (CLASS 8) (BLACK/WHITE HALVED DIAMONDS WITH CORROSIVE SYMBOL

UK ROAD CLASS: 8

PROPER SHIPPING NAME:

CORROSIVE LIQUID, ACIDIC INORGANIC NSO (SULPHURIC ACID)

UN No. ROAD: 3264 UN ROAD PACK GR: II

ADR CLASS: 8 HAZARD NO (ADR) 80

ADR CLASS No.: Class 8: Corrosive substances.

ADR PACK GROUP: II RID CLASS NO 8

ADR LABEL No.: 8 UN NO SEA 3264

CEVIC TEC(R) No.: 80GC1-II+III

RID PACK GROUP: II

IMDG CLASS: 8 IMDG PAGE No.: 8147

IMDG PACK GR.: II EmS No.: F – A, S – B

MFAG: see guide MARINE POLLUTANT: No

UN No AIR: 3264 AIR CLASS: 8

AIR PACK GR.: II

15. REGULATORY INFORMATION:

LABEL FOR SUPPLY: CORROSIVE

DANGEROUS FOR THE ENVIRONMENT

RISK PHRASES: R-35 Causes severe burns.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES:

S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S-24/25 Avoid contact with skin and eyes.

S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S-57 Use appropriate containment to avoid environmental contamination.

S-60 This material and its container must be disposed of as hazardous waste.

S-61 Avoid release to the environment.

UK REGULATORY REFERENCES:

Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 1988

GUIDANCE NOTES:

Occupational Exposure Limits EH40.

16. OTHER INFORMATION:

INFORMATION SOURCES:

Dangerous Properties of Industrial Chemicals, N.Sax, Croner's: Dangerous Substances. Croner's: Emergency Spillage Guide. Croner's: Substances Hazardous to Health. Material Safety Data Sheet, Misc. manufacturers

REVISION DATE: 08/10/07