

# SAFETY DATA SHEET (SDS)

## ISOCHEM 978

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### SECTION I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT NAME : ISOCHEM 978  
CHEMICAL FAMILY : Mixture  
CHEMICAL NAME : Mixture  
CAS No. : None

DISTRIBUTER : Isokimia Sdn Bhd  
No 5, Jalan Pelabur 23/1  
40300 Shah Alam  
Malaysia  
Telephone : +603-55410612  
Fax : +603-55410132

#### EMERGENCY CONTACT POINT

Department : Technical Department  
Telephone number : +603-55410612

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### SECTION II. HAZARD IDENTIFICATION

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#### CLASS CLASSIFICATION

Skin Corrosion : Category 1B  
Eye Damage : Category 1  
Aquatic Acute : Category 3

#### CLASS LABEL ELEMENTS

##### Hazard Symbols



Signal Word  
Danger

##### Hazard Statements

H314 : Cause severe skin burns and eye damage.  
H 402 : Harmful to aquatic life.

##### Precautionary Statements

P260 : Do not breathe mist vapors, spray.  
P264 : Wash exposed skin thoroughly after handling.  
P273 : Avoid release to the environment.  
P280 : Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P330 + P331 : IF SWALLOW: rinse mouth. Do not induce vomiting.  
P303 + P361 + P353 : IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.  
Rinse skin with water/shower.

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P304 + P340	: IF INHALE: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+338	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	: Dispose of contents/container to comply with local, state and federal regulations

### SECTION III. COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Material</u>	<u>CAS Number</u>	<u>Concentration ranges,%</u>
Alkali metal hydroxide	-	30 - 60%

### SECTION IV. FIRST AID MEASURES

SKIN CONTACT	: Wash immediately with lots of water/shower for 15 minutes. Do not apply (chemical) neutralizing agents. Remove contaminated clothing while washing. Do not remove clothing if it stick on skin. Launder contaminated clothing before reuse. If redness, pain and irritation persist after washing, get medical attention.
INHALATION	: Move patient to well-ventilated area with fresh air. If there is breathing difficulties, give artificial respiration / resuscitation. Get immediate medical attention.
EYE CONTACT	: Immediately flush eyes with large amount of water for at least 15 minutes. Keep holding eyelids well open to rinse the whole eye surface and eyelids with water. Remove contact lenses if can be done easily. Get medical attention immediately.
INGESTION	: DO NOT induce vomiting. Immediate rinse mouth and give lots of water to drink. Get prompt medical attention.

### SECTION V. FIRE FIGHTING MEASURES

**Extinguishing Media** :

***Suitable Extinguisher Media***

Adapt extinguishing media to the surrounding environment. Dry powder, foam, carbon dioxide (CO<sub>2</sub>) or water spray / fog.

***Unsuitable Extinguisher Media*** :

DO not use water in jet or straight stream as it may scatter and spread.

**Fire Fighting Instructions**

Evacuate area. Prevent run-off from fire control or dilution from entering sewers or drinking water supply. Fire fighter should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surface and protect personnel.

**Hazardous Combustion Products**

On heating, release of corrosive gases/vapors. Exothermic reaction with acids. Reacts with metals to release high flammable gases/vapors(Hydrogen).

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### SECTION VI. ACCIDENTAL RELEASE MEASURES

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#### **Personal Precautions, Protective Equipment and Emergency Procedures:**

- Contaminated surfaces will be extremely slippery, wear chemical resistance glove, face shield and corrosion-proof suite to stop the leak.
- Avoid contact with the skin and eyes.

#### **Environmental Precautions:**

- Prevent material from entering the sewer, surface water and ground water system. Contains any fluid that runs out using suitable materials such as sand and earth.

#### **Methods and materials for containment and cleaning up:**

- Soak up with inert absorbent material (e.g. sand, silica gel, sawdust). Keep in suitable container, closed container for disposal. Dispose of the waste according to the local regulations.
- Clean up area with plenty of water, dispose of cleaning water based on local regulations.

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### SECTION VII. HANDLING AND STORAGE

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#### **Precautions for safe handling**

##### **Hygiene measures**

Wash hand thoroughly before breaks and at the end of workday. When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash contaminated clothing before re-use.

##### **Advice on safe handling**

Product may contain volatile ingredient which could accumulate in the unvented headspace of drums or containers. Open containers in well-ventilated area. Do not breathe vapor.

##### **Conditions for safe storage**

- Keep substance away from heat source, combustible materials, strong acids and metal.
- Store in dry area, keep container in well ventilated place.
- Incompatible with strong base and strong acids.

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### SECTION VIII. EXPOSURE CONTROL AND PERSONAL PROTECTION

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The American Conference of Government Industrial Hygienists (ACGIH) value is provided on this document for information and reference only.

#### ***Occupational Exposure Limit***

Material	Source	Type	mg/m3
Alkali metal hydroxide	ACGIH	TWA	2
	USECHH Malaysia	TWA	2

#### ***Engineering Controls***

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

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### **Personal Protective Equipment**

Personal protective equipment selection varies based on potential exposure conditions such as applications, handling practice, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Hygiene measures	: Always observed good personal hygiene measures such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash personal protective equipment to remove contaminants. Wash contaminated clothing before re-use. Practice good housekeeping.
Respiratory protection	: If engineering control do not maintain airborne concentrations to a level which is adequate to protect worker health, an NIOSH approved respirator may be appropriate.
Hand protection	: Chemical resistance Nitrile glove is recommended.
Eye protection	: Wear safety glasses or goggles.
Skin / Body protection	: Where risk of splashing or in spillage clean up, use chemical resistance clothing.
Other protective equipment	: Eye bath
Thermal hazards	: Not applicable
Environment exposure control	: Do not discharge into drains / surface waters / ground water. Local guideline on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

### **STANDARD INDUSTRIAL HYGIENE PROCEDURES SHOULD BE PRACTISE**

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## **SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES**

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a. Appearance (physical state, color, etc)	: Liquid, clear colorless.
b. Odor	: odorless
c. Odor threshold	: Data not available
d. pH	: 13 – 14
e. Melting Point / Freezing point	: approx. 0°C
f. Initial boiling point and boiling range	: approx. > 100°C
g. Flash point	: Not applicable.
h. Evaporation Rate	: Data not available
i. Flammability (solid, gas)	: Data not available
j. Upper / lower flammable or explosive limits	: Not applicable
k. Vapor pressure	: Data not available
l. Solubility	: Exothermically soluble in water.
m. Vapor density	: Data not available
n. Specific gravity	: 1.20 – 1.30 kg/m <sup>3</sup>
o. Partition coefficient : n-octanol/water	: Data not applicable
p. Auto-ignition temperature	: Not applicable
q. Decomposition temperature	: Data not available.
r. Viscosity	: Not applicable.

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### SECTION X. STABILITY AND REACTIVITY

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- a. Reactivity : On heating : Release corrosive gases/vapors, exothermic reaction with acids and metals.
- b. Chemical Stability : Stable under normal condition.
- c. Possibility of hazardous reaction : None current known.
- d. Conditions to avoid : Direct sunlight, extremely high or low temperature.
- e. Incompatible materials : Strong acids, metal.
- f. Hazardous decomposition products : Metal oxide. Thermal decomposition generates corrosive vapors.

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### SECTION XI. TOXICOLOGICAL INFORMATION

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There is no toxicology data available on the mixture, Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

#### Toxicology information on ingredients

- a. Acute toxicity : Not classified.

#### Alkali metal hydroxide

Dermal Toxicity : LD50 – Rabbit - > 1350 mg/kg

- b. Skin corrosion / irritation : Corrosive, might cause skin burn, irritation and necrosis.
- c. Serious eye damage / eye irritation : Eye burn, necrosis. Risk of blindness.
- d. Respiratory sensitization : Not classified.
- e. Skin sensitization : Data not available. .
- f. Carcinogenicity : Not classified
- g. Germ cell mutagenicity : Not classified.
- h. Reproductive toxicity : Not classified.
- i. Specific target organ toxicity (STOT) : Not classified.  
single exposure
- j. Specific target organ toxicity (STOT) : Not classified..  
-Repeated exposure
- k. Aspiration hazard : No classified.
- l. Additional information  
Chronic symptoms : On continuous/repeated exposure/contact may cause skin dryness, rashes or inflammation.

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### SECTION XII. ECOLOGICAL INFORMATION

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- a. Ecotoxicity (aquatic and terrestrial, where available) :  
Mild water pollutant (surface water). Ground water pollutant.

Biological effects: Toxic effect on fish and plankton. Harmful effect due to pH shift.

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Death of fish possible. Does not cause biological oxygen deficit. Neutralization possible in waste water treatment plants.

Fish toxicity: Fish LC50 : 189 mg/l ( 1 N solution = 40 g/l )

- b. Persistence and degradability : Not applicable.
- c. Bio accumulative potential : Not applicable
- d.. Mobility in the soil : Data not available.
- e. Other adverse effect : Avoid release to the environment

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### SECTION XIII. DISPOSAL INFORMATION

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The following advice only applies to the product as supplied; combination with other materials may well indicate another route of disposal. Disposal must be in accordance with applicable law and regulations. Consult disposal expert.

#### Waste treatment methods

##### **a. Material**

##### Recommendation:

Dispose waste in accordance with the local/state/federal regulation. Remove for physicochemical / biological treatment. Avoid release to the environment.

##### **b. Empty container / packaging**

##### Recommendation:

Contaminated packaging should be emptied as far as possible.

Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled. Observed local/state/federal regulations.

Recommended cleaning agent: Water

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### SECTION XIV. TRANSPORTATION INFORMATION

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- a. UN Number : 1760 – Corrosive liquid n.o.s
- b. Transport hazard classes :
  - Rail/Road(RID/ADR) : Class 8 – Corrosive material
  - Air (ICAO/IATA) : Class 8 – Corrosive material
  - SEA (IMO / IMDG) : Class 8 – Corrosive material
- c. Packing group : II
- d. Marine pollutant : Yes
- e. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Yes

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### SECTION XV. REGULATORY INFORMATION

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Governing Directive

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Occupational Safety and Health (Classification, Labeling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

Malaysia Occupational Safety and Health Act 1994

Malaysia Use and Standard s of Exposure of Chemicals Hazardous to Health Regulation 2000

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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### SECTION XVI. OTHER INFORMATION

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The information herein is believed to be accurate based on our state of knowledge at the date of revision and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply to all federal, state, provincial or local law.

The information given applies only to our specific product and may not be valid for such material used in combination with other products. It is the user's responsibility to evaluate the suitability of the information for their particular purpose. No warranty is made, either expressed or implied in this safety data sheet. We do not accept liability for any loss or damage resulted from use of this safety date sheet information.

#### Legend

ADR	: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	: Chemical Abstracts Service (division of the American Chemical Society).
IATA	: International Air Transport Association.
ICAO	: International Civil Aviation Organization.
IMDG	: International Maritime Code for Dangerous Goods.
LC50	: Lethal concentration, for 50 percent of test population
LD50	: Lethal dose, for 50 percent of test population.
NIOSH	: National Institute of Occupational Safety and Health Malaysia
RID	: Goods by rail
TWA	: Threshold Limit Value for the Time Weighted Average 8 hour day (ACGIH Standard).
USECHH	: Use and Standard of Exposure Chemicals Hazards to Health 2000, Malaysia