

## Safety Data Sheets

### 1. Identification

Product Name	: Cleaning solution RS
Order No.	: SPC-0336
General Use	: Cleaning solution for ink jet printer
Product Description	: Solvent liquid
SDS Number	: 037-C012451
Manufacture	
Company Name	: Mimaki Engineering Co., Ltd.
Address	: 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN
Telephone No.	: +81-268-64-2413
Importer / Distributor Established in Australia	
Company Name	: MIMAKI AUSTRALIA PTY LTD.
Address	: Unit 14, 38-46 South Street, Rydalmere, NSW 2116, Australia
Telephone No.	: + 61-2-8036-4500
Emergency Telephone No.	: +61 2 8014 4558 (within Australia only) 18000 74234 (within Australia only) +65 3158 1074

### 2. Hazards Identification

[Classification of the substance or mixture]

COMBUSTIBLE LIQUID, regulated for storage purposes only

Physical Hazards

Flammable Liquids : Category 4

Health Hazards

Acute Toxicity – Dermal : Category 4

Eye Damage / Irritation : Category 1

Specific Target Organ Toxicity : Category 1

(Single Exposure)

Specific Target Organ Toxicity : Category 2

(Repeated Exposure)

Legend: Classified by Chemwatch

The above list does not include category being non-classifiable or not-applicable.

[Label Elements]

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Symbol



Signal Word

Danger

Hazard Statements

H227 Combustible liquid.

H312 Harmful in contact with skin.

H318 Causes serious eye damage.

H370 Causes damage to organs.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

[Prevention]

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.

(P305+) P310 Immediately call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use water spray/fog for extinction.

[Storage]

P403+P203 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

[Disposal]

P501 Dispose of contents/container in accordance with local regulations.

## 3. Composition / Information on Ingredients

[Substances]

See section below for composition of Mixtures

Mixtures

No	Chemical Name	Wt%	CAS No.
1	Ethylene glycol monobutyl ether acetate	90-100	112-07-2
2	Cyclohexanone	1-10	108-94-1

## 4. First Aid Measures

[Description of first aid measures]

Eye Contact : If this product comes in contact with the eyes:

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	Wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.
Inhalation	: If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.
Ingestion	: Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Indication of Immediate Medical Attention and Special Treatment Needed	: Treat symptomatically.

### 5. Fire Fighting Measures

#### [Extinguishing Media]

Extinguishing Media : Foam. Dry chemical powder. BCF (where regulations permit).  
Carbon dioxide. Water spray or fog - Large fires only.

#### [Special hazards arising from the substrate or mixture]

Fire Incompatibility : None known.

#### [Advice for firefighters]

Fire Fighting : Alert Fire Brigade and tell them location and nature of hazard.

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Wear full body protective clothing with breathing apparatus.

Prevent, by any means available, spillage from entering drains or water course.

Use water delivered as a fine spray to control fire and cool adjacent area.

Avoid spraying water onto liquid pools.

DO NOT approach containers suspected to be hot.

Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

Fire/Explosion Hazard : Combustible.

Slight fire hazard when exposed to heat or flame.

Heating may cause expansion or decomposition leading to violent rupture of containers.

On combustion, may emit irritating/ toxic fumes.

May emit acrid smoke.

Mists containing combustible materials may be explosive.

May emit poisonous fumes.

HAZCHEM : Not Applicable

### 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures : See section 8.

Environmental precautions : See section 12.

[Methods and material for containment and cleaning up]

Minor Spills : Remove all ignition sources.

Clean up all spills immediately.

Avoid breathing vapours and contact with skin and eyes.

Control personal contact with the substance, by using protective equipment.

Contain and absorb spill with sand, earth, inert material or vermiculite.

Wipe up.

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Major Spills	<p>Place in a suitable, labelled container for waste disposal.</p> <p>: Clear area of personnel and move upwind.</p> <p>Alert Fire Brigade and tell them location and nature of hazard.</p> <p>Wear breathing apparatus plus protective gloves.</p> <p>Prevent, by any means available, spillage from entering drains or water course.</p> <p>No smoking, naked lights or ignition sources.</p> <p>Increase ventilation.</p> <p>Stop leak if safe to do so.</p> <p>Contain spill with sand, earth or vermiculite.</p> <p>Collect recoverable product into labelled containers for recycling.</p> <p>Absorb remaining product with sand, earth or vermiculite.</p> <p>Collect solid residues and seal in labelled drums for disposal.</p> <p>Wash area and prevent runoff into drains.</p> <p>If contamination of drains or waterways occurs, advise emergency services.</p>
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Personal Protective Equipment advice is contained in Section 8 of the SDS.

### 7. Handling and Storage

#### [Precautions for safe handling]

Safe handling	<p>: Avoid all personal contact, including inhalation.</p> <p>Wear protective clothing when risk of exposure occurs.</p> <p>Use in a well-ventilated area.</p> <p>Avoid contact with incompatible materials.</p> <p>When handling, DO NOT eat, drink or smoke.</p> <p>Keep containers securely sealed when not in use.</p> <p>Avoid physical damage to containers.</p> <p>Always wash hands with soap and water after handling.</p> <p>Work clothes should be laundered separately. Launder contaminated clothing before re-use.</p>
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#### [Conditions for safe storage, including any incompatibilities]

Storage incompatibility	<p>: Store in original containers.</p> <p>Keep containers securely sealed.</p> <p>No smoking, naked lights or ignition sources.</p> <p>Store in a cool, dry, well-ventilated area.</p> <p>Store away from incompatible materials and foodstuff containers.</p>
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Protect containers against physical damage and check regularly for leaks.

Observe manufacturer's storage and handling recommendations contained within this SDS.

## 8. Exposure Controls / Personal Protection

[Control parameters]

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA: Australia Exposure Standards

Ingredient	Material name	TWA	STEL	Peak	Notes
Ethylene glycol monobutyl ether acetate	2-Butoxyethyl acetate	133 mg/m <sup>3</sup> /20 ppm	333 mg/m <sup>3</sup> /50 ppm	Not Available	Not Available
Cyclohexanone	Cyclohexanone	100 mg/m <sup>3</sup> /25 ppm	Not Available	Not Available	Not Available

### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Ethylene glycol monobutyl ether acetate	Butoxyethanol acetate, 2-; (Ethylene glycol monobutyl ether acetate)	15 ppm	35 ppm	210 ppm
Cyclohexanone	Cyclohexanone; (Ketoexamethylene)	60 ppm	830 ppm	5,000 ppm

Ingredient	Original IDLH	Revised IDLH
Ethylene glycol monobutyl ether acetate	Not Available	Not Available
Cyclohexanone	5,000 ppm	700 ppm

### Exposure Controls

Appropriate : General exhaust is adequate under normal operating conditions.

Engineering Controls Provide adequate ventilation in warehouse or closed storage areas.

### Personal protection

Eye and face : Safety glasses with side shields.

protection Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may

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absorb and concentrate irritants.

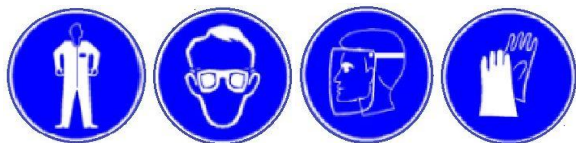
Hands/feet protection : Wear chemical protective gloves, e.g. PVC.

Wear safety footwear or safety gumboots, e.g. Rubber

Body protection : P.V.C. apron.

Respiratory Protection : Consult with a health and safety professional for specific respirators appropriate for your use.

Thermal hazards : Not Available.



### 9. Physical and Chemical Properties

[Information on basic physical and chemical properties]

Appearance	- Physical State	: liquid
	- Color	: Clear liquid
Odor		: Solvent odour
Odour threshold		: Not Available
pH (as supplied)		: Not Available
Melting point / freezing point (°C)		: Not Available
Initial boiling point and boiling range (°C)		: 191
Flash point (°C)		: 74.3
Evaporation rate		: Not Available
Flammability		: Not Available
Upper Explosive Limit (%)		: 10.7
Lower Explosive Limit (%)		: 0.8
Vapour pressure (kPa)		: Not Available
Solubility in water (g/L)		: Immiscible
Vapour density (Air = 1)		: Not Available
Relative density (Water = 1)		: 0.938
Partition coefficient n-octanol / water		: Not Available
Auto-ignition temperature (°C)		: 340
Decomposition temperature		: Not Available
Viscosity (cSt)		: Not Available
Molecular weight (g/mol)		: Not Available
Taste		: Not Available

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Explosive properties	: Not Available
Oxidising properties	: Not Available
Surface Tension (dyn/cm or mN/m)	: Not Available
Volatile Component (%vol)	: Not Available
Gas group	: Not Available
pH as a solution (1%)	: Not Available
VOC g/L	: Not Available

### 10. Stability and Reactivity

Reactivity	: Stable under normal conditions of use.
Chemical Stability	: Unstable in the presence of incompatible materials. Product is considered stable.
Possibility of Hazardous Reactions	: Hazardous polymerisation will not occur.
Conditions to Avoid	: See section 7
Incompatible Materials	: See section 7
Hazardous	: See section 5
Decomposition	

### 11. Toxicological Information

Acute Toxicity : Category 4, as a product- Dermal

	TOXICITY	IRRITATION
As a product	Not Available	Not Available
Ethylene glycol monobutyl ether acetate	Not Available	Not Available
Cyclohexanone	Not Available	Not Available

[Information on toxicological effects]

Inhaled : There is strong evidence to suggest that this material can cause, if inhaled once, very serious, irreversible damage of organs.  
 The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.



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Ingestion	<p>: There is strong evidence to suggest that this material can cause, if swallowed once, very serious, irreversible damage of organs.</p> <p>The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.</p>
Skin Contact	<p>: There is strong evidence to suggest that this material, on a single contact with skin, can cause very serious, irreversible damage of organs.</p> <p>The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material.</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p>
Eye	<p>: Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).</p>
Chronic	<p>: Substance accumulation, in the human body, is likely and may cause some concern following repeated or long-term occupational exposure.</p>
Skin	<p>: Data Not Available to make classification</p>
Irritation/Corrosion	
Serious Eye	<p>: Category 1, as a product</p>
Damage/Irritation	
Respiratory or Skin sensitisation	<p>: Data Not Available to make classification</p>
Mutagenicity	<p>: Data Not Available to make classification</p>
Carcinogenicity	<p>: Data Not Available to make classification</p>
Reproductivity	<p>: Data Not Available to make classification</p>
STOT – Single Exposure	<p>: Category 1, as a product</p>
STOT – Repeated Exposure	<p>: Category 2, as a product</p>

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Aspiration Hazard : Data Not Available to make classification

## 12. Ecological Information

Handling is noted because it might influence the environment when leaking and abandoning it. Especially, note that the product doesn't flow directly to ground, the river, and the drain ditch.

### Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	SOURCE
As a product	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Ethylene glycol monobutyl ether acetate	LC50	96	Fish	41.186mg/L	3
	EC50	48	Crustacea	=37mg/L	1
	EC50	96	Algae or other aquatic plants	3.228mg/L	3
	EC0	48	Crustacea	=10mg/L	1
Cyclohexanone	LC50	96	Fish	71.940mg/L	3
	EC50	72	Algae or other aquatic plants	32.9mg/L	5
	EC10	72	Algae or other aquatic plants	3.56mg/L	4
	NOEC	24	Fish	ca.5mg/L	1

Legend: 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances – Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data

Mobility : No information available for the product.

Persistence and Degradability : No information available for the product.

Bioaccumulative Potential : No information available for the product.

Other Adverse Effects : No information available for the product.

## 13. Disposal Considerations

Disposal Methods : Dispose in accordance with all applicable regulations. Empty containers may contain product residue.

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Do not dump this product into sewers, on the ground or into any body of water.

## 14. Transport Information

Check a thing without a leak in a container.

Perform prevention of collapse of cargo surely.

COMBUSTIBLE : COMBUSTIBLE LIQUID, regulated for storage purposes only

LIQUID

Marine Pollutant : No

HAZCHEM : Not Applicable

Land transport (ADG) : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

(ICAO-IATA / DGR)

Sea transport : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

(IMDG-Code / GGVSee)

Transport in bulk : Not Applicable

according to Annex II of

MARPOL and the IBC

code

## 15. Regulatory Information

[Safety, health and environmental regulations / legislation specific for the substance or mixture]

Chemical Name	Regulatory
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE(112-07-2)	Australia Exposure Standards
	Australia Inventory of Chemical Substances (AICS)
	Australia Hazardous Substances Information System -Consolidated Lists
CYCLOHEXANONE(108-94-1)	Australia Exposure Standards
	Australia Inventory of Chemical Substances (AICS)
	Australia Hazardous Substances Information System -Consolidated Lists
	International Agency for Research on Cancer (IARC) – Agents Classified by the IARC Monographs

[National Inventory]



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Australia - AICS	: Y
Canada - DSL	: Y
Canada - NDSL	: Y
China - IECSC	: Y
Europe - EINEC / ELINCS / NLP	: Y
Japan - ENCS	: Y
Korea - KECI	: Y
New Zealand - NZIoC	: Y
Philippines - PICCS	: Y
USA - TSCA	: Y

Y = All ingredients are on the inventory

### 16. Other Information

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Mimaki Engineering Corporation.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process.

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