



## SAFETY DATA SHEET

### 1. PRODUCT IDENTIFICATION

Name of product: **LIQUID BUFFER CFC-FREE**

Manufacture Information: MARUNI INDUSTRY CO., LTD.  
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Phone +81-6-6716-4171

Emergency advice: Phone +81-6-6716-4171

Recommended use(s): Cleaner

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### 2. Hazards Identification

#### GHS Classification

Flammable Liquid	Category 2
Skin corrosion/irritation	Category 2
Eye corrosion/irritation	Category 2A
Skin sensitization	Category 1
Specific target organ toxicity - Single exposure	Category 3(drowsiness and dizziness, respiratory irritation)
Aspiration hazard	Category 1
Acute toxicity to the aquatic environment	Category 1
Chronic toxicity to the aquatic environment	Category 1

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#### Label Elements

Pictogram and Symbol :



Signal word : **Danger**

#### Hazard statement :

H225	Highly flammable liquid and vapour
H315	Causes skin irritation
H319	Causes serious eye irritation



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H317	May cause an allergic skin reaction
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H304	May be fatal if swallowed and enters airways
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

### **Precautionary statements :**

#### **Prevention**

P210	Keep away from heat/sparks/open flames/ hot surface . No smoking.
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical equipment.
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash hand thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection

#### **Response**

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN(or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P331	Do not induce vomiting
P332+P313	IF skin irritation occurs: Get medical advice/attention
P337+P313	IF eye irritation persists: Get medical advice/attention
P342+P311	IF experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P362	Take off contaminated clothing and wash before reuse
P370+P378	In case of fire: Use dry chemical powder,appropriate foam,carbon dioxide for extinction.
P391	Collect spillage


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### Storage

P403+P233+P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.

P405 Store locked up

### Disposal

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

## 3. Composition/ information on ingredients

**Chemical Identity** Cleaner

**Synonyms** - - -

**Chemical Formula** Mixture

CAS No.	Component Name	Percent
68513-03-1	Solvent naphtha	>50
108-65-6	1-methoxy-2-propyl acetate	<50
5989-27-5	D-limonene	<50

## 4. First aid and Measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water, Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never make him/her vomit by force. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2)



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and/or in section 11.

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

No data available

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## **5. Fire-fighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Dry powder, Carbon dioxide, Alcohol-resistant foam. Use water spray or fog to control fire fumes.

#### **Unsuitable extinguishing media**

Do not use a solid water stream.

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

#### **Specific hazards**

Exposure to fire may cause containers to rupture / explode.

#### **Hazardous combustion products**

If involved in a fire, the following toxic and / or corrosive fumes may be produced by thermal decomposition: Carbon dioxide and Carbon monoxide

### **5.3 Advice for fire-fighters**

#### **Specific methods**

If possible, stop flow of product. If leaking, do not extinguish a flame unless absolutely necessary. Spontaneous / explosive re-ignition may occur. Extinguish any other fire. Move container away or cool with water from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.

### **5.4 Further information**

No data available

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## **6. Accidental release measures**

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

Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust and avoid contact with skin and eyes.

### **6.2 Environmental precautions**

Prevent spills from entering sewers, watercourses or low areas.



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

Do not touch spilled material without suitable protection ( See section 8). After material is completely picked up, wash the spill with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

### 6.4 Reference to other sections

For disposal see section 13.

## 7. Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection.

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

Store away from sunlight in well-ventilated dry place at room temperature ( preferably cool place). Keep container tightly closed.

## 8. Exposure controls/ Personal protection

### 8.1 Engineering measures

Use exhaust ventilation to keep airborne concentrations below exposure limits.  
Use adequate ventilation.

### 8.2 Ventilation

Local exhaust; recommended, mechanical(General) ; recommended

### 8.3 Control parameters

Component Name	ACGIH TLV-TWA	OSHA PEL-TWA
Solvent naphtha	400 ppm	-
1-methoxy-2-propyl acetate	-	-
D-limonene	-	-

### 8.4 Personal protection

Respiratory protection	Safety masks
Hand protection	Chemical resistance gloves
Eye protection	Safety glasses(goggles)
Skin protection	Protective clothing



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### 9. Physical and Chemical properties

# element 1 : Solvent naphtha  
 ## element 2 : 1-methoxy-2-propyl acetate  
 ### element 3 : D-limonene

#### 9.1 Information on basic physical and chemical properties

a) Appearance		Clear and colorless	
b) Odour		Characteristic	
c) Odour Threshold		No data available	
d) pH		No data available	
e) Melting point/freezing point	-95°C(element 1)	<-10°C(element 2)	-74°C(element 3)
f) Initial boiling point and boiling range	90~125°C(element 1)	146°C(element 2)	176°C(element 3)
g) Flash point	-11.5°C(element 1)	42°C(element 2)	48°C(element 3)
h) Evaporation rate		No data available	
i) Upper explosive limits	7 vol%(element 1)	7 .0vol%(element 2)	6.1 vol%(element 3)
Lower explosive limits	1 vol%(element 1)	1.5 vol%(element 2)	0.7 vol%(element 3)
j) Vapour pressure	7 kPa at 20°C(element 1)	0.5kPa 25°C(element 2)	0.2kPa 20°C(element 3)
k) Vapour density (air=1)	3.6 (element 1)	4.6 (element 2)	4.7 (element 3)
l) Relative density		0.77 g/ml	
m) Water solubility (g/L, in water)	0.1 at 20°C (element 1)	>100 at 25°C (element 2)	0.01 at 25°C (element 3)
n) Partition coefficient : n-octanol/water	No data available(element 1)	log Pow=0.36 (element 2)	log Pow=4.6 (element 3)
o) Auto-ignition temperature	258°C(element 1)	354°C(element 2)	237°C(element 3)
p) Decomposition temperature		No data available	
q) Viscosity		No data available	

### 10. Stability and reactivity

#### 10.1 Reactivity

No reactivity hazard other than the effects described in sub-sections below.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Can form potentially explosive atmosphere in air. May react violently with oxidants.

#### 10.4 Conditions to avoid

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



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### 10.5 Incompatible materials

Air, Oxidiser

### 10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire the following toxic and/or corrosive fumes may be produced by thermal decomposition;

Carbon dioxide and Carbon mono-oxide

## 11. Toxicological information

# element 1 : Solvent naphtha  
 ## element 2 : 1-methoxy-2-propyl acetate  
 ### element 3 : D-limonene

### 11.1 Information on toxicological effects

	(element 1)	(element 2)	(element 3)
<b>Acute toxicity</b>			
LD50 Oral - Rat -	>7g/kg	>8,532mg/kg	4.4g/kg
<b>Skin corrosion/irritation</b>			
Skin - Rabbit	Moderate	not irritating	
Result :	Group 2		Group 2
<b>Eye damage/eye irritation</b>			
Eyes - Rabbit	Not irritating	Slightly irritating	No data available
Result :		Group 2B	
<b>Respiratory sensitization</b>			
	No data available	Not sensitizing	No data available
<b>skin sensitization</b>			
	Not sensitizing	No data available	Group 1
<b>Germ cell mutagenicity</b>			
		No data available	Negative
<b>Carcinogenicity</b>			
	Not classified	No data available	Not classified
<b>Reproductive toxicity</b>			
	No data available	No data available	No data available
<b>Specific target organ toxicity - single exposure</b>			
	Group 3	Group 3	No data available
<b>Specific target organ toxicity - repeated exposure</b>			
		Not classified	No data available
<b>Aspiration hazard</b>			
	Group 1	No data available	No data available



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### 12. Ecological information

	(element 1)	(element 2)	(element 3)
<b>12.1 Toxicity</b>			
LC50	0.1mg/L/96h (Mysidopsis bahia)	180mg/L/96h (Rainbow Trout)	0.7mg/L/96h (fathead minnow)
<b>12.2 Persistence and degradability</b>			
BOD	No data available	No data available	No data available
<b>12.3 Bioaccumulative potential</b>			
	No data available	No data available	No data available
<b>12.4 Mobility in soil</b>			
	No data available	No data available	No data available
<b>12.5 Results of PBT and vPvB assessment</b>	Non-classified PBT substance, Non-classified vPvB substance		
<b>12.6 Other adverse effects</b>	Toxic to aquatic life with long lasting effects.		

### 13. Disposal considerations

#### Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

### 14. Transport information

<b>14.1 UN number</b>			
ADR/RID : 1993	IMDG : 1993	IATA : 1993	
<b>14.2 UN proper shipping name</b>			
ADR/RID :	FLAMMABLE LIQUID, N.O.S		
IMDG :	FLAMMABLE LIQUID, N.O.S		
IATA :	FLAMMABLE LIQUID, N.O.S		





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### 14.3 Transport hazard class(es)

ADR/RID : 3

IMDG : 3

IATA : 3

### 14.4 Packaging group

ADR/RID : II

IMDG : II

IATA : II

### 14.5 Environmental hazards

ADR/RID : Environmentally Hazardous Substance

IMDG : Environmentally Hazardous Substance

IATA : Environmentally Hazardous Substance

### 14.6 Special precautions for user

Keep away from sources of heat and ignition.

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## 15. Regulatory information

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

#### Notification Status

Europe REACH : On inventory, or in compliance with the inventory

United States of America TSCA : On inventory, or in compliance with the inventory

Japan ENCS : On inventory, or in compliance with the inventory

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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## 16. Other information

**NOTICE:** MARUNI INDUSTRY CO., LTD. believes that information contained on this safety data sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all-inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements.

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Maruni Industry Co., Ltd

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 Technical Division