MATERIAL SAFETY DATA SHEET

MANUFACTURE: MISUMI.Co., LTD

ADDRESS: IIDABASHI FIRST BUILDING 6F, 5-1, KOURAKU 2-CHOME, BUNKYOU-KU

TOKYO, 112-0004, JAPAN

DIVISION NAME: FACTORY SUPPLY DIVISION

TELEPHONE NUMBER:0120-343-256

FAX NUMBER:03-3647-7123

EMERGENCY ADDRESS: THE SAME ABOVE

DATA PREPARED: 2013/01/24

SECTION 1 IDENDITY

AMPC840 MISUMI • PARTS CLEANER

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Mixture Products

Ingredients: Petroleum solvent, Ethanol, Propellant (Propane, Butane, Carbon dioxide)

Chemical formula/Structure formula: Unidentified because of mixture products

CAS No.: Confidential

UN Classification and UN No.: Class 2.1, No. 1950

Japan Industrial Safety and Health Law: Ethanol (10~20%), Butane (Notification physical object)

PRTR Law: Not applicable

SECTION 3 HAZARDS IDENTIFICATION

Classified name: Compressed gas, Flammable gas

Hazards

- \cdot Fire Defense Law, Dangerous goods class4,the 1st petroleum, fire danger rating II
- This product contains compressed gas inside. Heating or giving shock may cause explosion.
- · It forms explosive gases to mix with air.
- · Compressed liquefied gas and inflammable.

Toxicity

- · Inhalation of the gas may cause dizziness, depression of central nerve.
- · Repeated or prolonged exposure may cause inflammation.

Effect on the environments: No data

SECTION 4 FIRST AID MEASURES

EYE CONTACT

Rinse a contaminated eye with plenty of clean water and seek a medical advice.

SKIN CONTACT

Flush an affected area under running water with soap.

INHOLATION

Remove an affected person to fresh air and keep calm. Seek a medical advice if necessary.

INTAKE

Do not induce vomiting and seek a medical advice immediately. Rinse a contaminated mouth with plenty of clean water.

SECTIN 5

FIRE FIGHTING MEASURES

FIRE FIGHTING

Keep away from fire. Use the extinguishers as follows in case of early fire.

EXTIHGUISH MEDIA

Carbon dioxide, Foam and Powder

Don't use hose line water.

SECTION 6

ACCIDENTAL RELEASE MEASURES

Eliminate all sources of ignition. Remove spill into an empty container.

Wipe it off inert materials such as clothes. Do not allow spill to enter rivers, drains and the rest.

SECTION 7

HANDLING AND STRAGE

Conform to applicable laws and regulations. Take heed of the points as follows.

HANDLING: Keep away from sources of heat, open flames and sparks. Handle the product without static electricity. Handle it in a normal temperature. Take care not to touch it and inhale the mist.

STORAGE: Store the product in a cool and well ventilated place. Keep away from oxidizing agents, storing acids strong alkalis and halogens. Do not store the product with them.

SECTION 8

EXPOSURE CONTROLS AND PERSONAL PROTECTON

STANDARD CONTROL CONCENTRATION: Petroleum solvent: No provisions concerning

Ethanol: No provisions concerning

OCCUPATINAL EXPOSURE LIMIT

ACGIH(TWA) Petroleum solvent: 500ppm

Ethanol: 1000ppm

ENGINEERING CONTROLS

Ensure proper airflow.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: Wear a gas mask with an organic vapor canister according to situations.

Protective gloves: Wear impervious gloves in case of repeated or prolonged contact.

Protective glasses: Wear glasses if you're exposed to spray.

Protective clothes: Wear impervious working clothes in case of prolonged handling or getting wet.

SECTION 9 PHYSICAL/CHEMICAL PROPERTIES Petroleum solvent Ethanol Propane Butane Carbon dioxide Colorless clear liquid Appearance Odor Solvent odor Sweet odor Little ethereal odor Little ethereal odor dorless -42.0°C Boiling point 61~63°C 78.3℃ -0.5℃ -78.5°C 0.002 (0°C) Density(g/cm3) 0.66(15°C) 0.78 (20°C) 0.58 (Liquid 20°C) 0.59 (Liquid 20°C) Melting point -114.1℃ -187.7°C -146.8℃ -56.6℃ No data Insoluble Solubility in water Insoluble Soluble Insoluble low solubility

SECTION10	STABILITY / REACTIVITY b				
	Petroleum solve	nt Ethanol	Propane	Butane	Carbon dioxide
Flash point	-30°C below	13℃	-90°C	-72℃	NA
Ignition point	280°C	439°C	493°C	441°C	NA
Explosive limits	$1.2\sim$ 7.7 vol%	3.3~19%	2.2~9.5vol%	1.8~8.4vol%	NA
Combustibility	Combustible	Combustible	Combustible	Combustible	Noncombustibility
Oxidizing potential	None	None	None	None	None
Self-reactivity	None	None	None	None	None
Stability	Stable	Stable	Stable	Stable	Stable
Reactivity	Inactive	Inactive	Inactive	Inactive	Inactive
Other: Avoid mix	king strong oxidiz	ing agents			
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SECTION 11

TOXICOLOGICAL IMFORMATION

Irritability (skin, eye): Repeated or prolonged contact can cause irritation.

Acute Toxicity: Petroleum solvents Oral LD50=28,700mg/kg above (rat)

Ethanol Oral LD50=5,000mg/kg above (rat)

Chronic toxicity: No data Carcinogenicity: No data Mutagenicity: No data

Reproductive toxicity: No data

Teratogenicity: No data

SECTION 12 ECOLOGICAL INFORMATION

Decomposition: No data

Accumulation: No data

Marine Toxicity: No data

SECTION 13

DISPOSAL CNDITIONS

Conform to all applicable laws and regulations in your country.

Waste must be disposed of in conformity to federal, state and local environment control regulations.

SECTION 14

TRANSPORT INFORMATION

Take notice of "HANDLING AND STORAGE" (SECTION7) in transit.

Ascertain that there is no damage or leakage on the container. Be sure to place products without load shifting.

Conform to all applicable laws and regulations in your country.

SECTION 15

REGULATORY INFORMATION

Conform to all applicable laws and regulations in your country.

SECTION 16

OHTR INFORMSTION/REFERENCE

- 1, ITRC" Monographs on the evaluation of the carcinogenic risk of chemicals to humans volume 33"
- 2,"Recommendations of occupational exposure limit (1992)", Japan Industry and Health Society, Industrial Medicine No.35 pp.323-367
- 3,"Guide to preparing Material Safety Data Sheet", Japan Chemical and Industry Society.
- 4, Each material's MSDS

NOTICE TO READER

The MSDS is made on assumption that the product is in ordinary use and does not relate to use in combination with any other material or any process. This MSDS is not considered a guarantee or warranty of the product's properties. MSDS is offered to users for reference as to dangerous and harmful chemicals. Users should take all necessary steps to fulfill the demands set out in local rules and legislations under their responsibility. Users should handle with this product according to the conditions. MSDS may be made alternation in by new knowledge.