### **MATERIAL SAFETY DATA SHEET**

DATE: 2016/9/17

PRODUCT
AND
COMPANY
IDENTIFICATION

MANUFACTURER R-GOT CO.,LTD

PRODUCT NAME: STENKOLOLIN GREEN

1-3,EBISUNISI 2-CHOME SHIBUYA-KU TOKYO 150-0021 JAPAN

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### COMPOSITION/ INFORMATION ON INGREDIENTS

### COMPONENTS

	1	T	
MATERIAL	CAS No.	%	
Vegetable Oil		40~70	
Additive(sulfur type) in Fatty acid esters	<u> </u>	10~30	
N-BUTANE	106-97-8	10~20	
ISOBUTANE	75-28-5	1~10	
PROPANE	74-98-6	1~10	

# HAZARDS IDENTIFICATION

- •High-pressure liquefied gas inside. High temperatures and impact shock may lead to explosion.
- •Flammable liquefied gas inside. Gas vapor-air mixtures may be explosive.
- \*Liquefied gas is very mildly narcotic. Overexposure may cause mild discomfort.
- •If liquefied gas or escaping vapor contacts the skin, frostbite may occur.
- •Flammable liquid inside. Liquid vapor-air mixtures may be explosive.

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FIRST AID	EYE CONTACT	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.		
MEASURES		Flush backside of the eyelid completely. Call a physician immediately.		
	SKIN CONTACT	In case of contact, immediately flush solvent or thinner.	skin with plenty of water and soap. Do not flush skin with	
		Remove contaminated clothing and sh	noes. Call a physician, if necessary.	
		Wash contaminated clothing before re	euse.	
INHALATIO		Treat for frostbite if necessary by ger	ntly warming affected area.	
	INHALATION	If high concentrations of the mist or g	gas are inhaled, immediately remove to fresh air.	
		Keep person calm.		
		If not breathing, give artificial respirat	ion.	
		If breathing is difficult, give oxygen.		
_		Call a physician, if necessary.		
INGESTION	INGESTION	Keep person calm, and call a physicial	n immediately.	
		Do not induce vomitting.		

#### FIRE FIGHTING MEASURES

Fire Extinguishing Agent

Carbon Dioxide, Foam, Dry Chemical, Dry Sand

Fire Fighting Instructions:

- •Use full protective equipment when fighting fire.
- •Remove flammable material immediately from fire.
- •Use specified fire extinguishing agent.
- •Use water spray to cool nearby containers exposed to fire.
- •Battle the fires having the wind at one's back.
- · Aerosols can be bursting. Stay clear, while battling the fires.
- •Do not use water when fighting fire.

## SPILL OR LEAK PROCEDURES

- \*Leaking cans should be placed in plastic bag or open pail until pressure has dissipated.
- •Do not shake leaking cans. The contents may spurt.
- \*Disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors.
- •Remove all flames, heating elements and gas engines.
- •Remove or extinguish ignition or combustion sources.
- \*Use appropriate protective equipments(protective gloves, protective mask, protective goggles etc,).
- •Collect leakage in other container and move it to a place in safety. Do not use tools which may cause sparks.
- •Prepare for specified fire extinguishing agent in case of ignition.
- Prevent from discharging the leakage into waters, lakes, streams, tidal marshes, or estuaries.
- Dispose of waste in accordance with regulations.

### HANDLING AND STORAGE

[Handling]

- •Use only with adequate ventilation.
- ·Cap the container after use.
- •Do not use heat, fire, flame, or sparks around.
- \*Use only non-sparking and explosion-proof equipmenmt.
- •Bond/ground all lines and equipment.
- •Do not warm container above 40°C.
- •Do not use above 40°C.
- •Do not use for 30 seconds in a row.
- •In enclosed spaces, use with sufficient ventilation to keep employee exposure below recommended limits.
- •Do not spray in direction of flame.
- Avoid causing and inhaling high concentrations of vapor.

### [Storage]

- •Keep away from direct sunlight, heat and sources of ignition.
- •Keep in a cool, well ventilated place.
- •Keep at temperature not exceeding 40 °C.
- •Keep containers dry.
- Avoid area where salt or other corrosive materials are present.
- •Contact with halogens, strong acids, alkalis or other strong oxidizing agents should be avoided.
- •Keep away from children.

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EXPOSURE CONTROLS/ PERSONAL PROTECTION

·Ventilation must be adequate to maintain vapors at low levels, particularly at floor level as vapors are heavier than air.

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- •Local exhaust should be used when large amounts are used.
- •Install emergency eyewash fountain and deluge shower in/near work area.
- •Eye protection: Chemical safety goggles.
- •Skin protection: Solvent-resistance rubber type gloves. In case of long operation, wear long sleeves and oil proof clothing.
- •Respiratory protection: In enclosed spaces, wear an approved organic vapor respirator.

•ACGIH Formulated Concentrate

TWA:5mg/m³

Propellant

PROPANE: 2500ppm N-BUTANE: 800ppm ISOBUTANE: no data found

•Minimize exposure in accordance with good hygiene practice.

### PHYSICAL AND CHEMICAL PROPERTIES

[Formulated Concentrate]

Appearance: Lightgreen&transparent liquid

Specific Gravity: 0.935 at 15 °C
Viscosity: 62mm²/s at 40°C (approx)
Solubility in Water: Insoluble
Solubility in Organic Solvent: Soluble

[Propellant]

Boiling Point: -42.1 ~-0.5 °C

Vapor Pressure: 1.275  $\sim$  0.278 MPa at 40 °C Liquid Density: 0.565 g/cm³ at 20 °C

## STABILITY AND REACTIVITY

[Formulated Concentrate]

Flash point: 240°C Stability: Stable

Burning quality: Flammable

[Propellant]

Flash point:  $-104 \sim -73^{\circ}$ C Ignition point:  $405 \sim 462^{\circ}$ C Explosion limit:  $1.8 \sim 9.5\%$  Stability: Stable Reactivity: None

Burning quality: Extremely flammable. Vapor-air mixtures may be explosive.

Conditions to Avoid

Avoid open flames and high temperatures above 40°C.

Incompatibility with Other Materials

Incompatible with halogens, strong acids, alkalis or other strong oxidizing agents.

•Generation of Hazardous Gas

Incomplete combustion may puroduce carbon monooxide.

	[Propellant]				
	LC50(rat;inhalation) PROPANE, N-BUTANE, ISOBUTANE:no data found				
ECOLOGICAL INFORMATION	[Formulated Concentrate]  • Fish Expected to be not toxic at limit of water solubility  • Persistence/degradability Expected to be not inherently biodegradable				
	Oxidizes rapidly by photo-chemical reactions in air  *Bioaccumulation Has the potential to bioaccumulate  *Prevent from discharging the content or washing solvent into waters, lakes, streams, tidal marshes, or estuaries.				
	In case of leakage or disposal, be careful to handle the product. It may influence the environment.				
DISPOSAL CONSIDERATIONS	*Disposal method Consult state and local authorities for proper disposal procedures.  Dispose of the product in accordance with state and local regulations.				
	<ul> <li>Container Disposal Use up the product. Full or partially filled containers are considered hazardous.         Make sure to remove or extinguish fire or ignition sources around.     </li> <li>Push the button to remove pressure in the container out of doors.</li> <li>Be careful not to inhale the mist. Do not puncture or incinerate.</li> </ul>				
TRANSPORTATION INFORMATION	Shipping Information UN No. : 1950 Proper Shipping Name Aerosols, flammable Class 2. 1(Flammable gases) Packing Group — (not applicable)				
	<ul> <li>In case of transportation, pay attention to the instructions in "HANDLING AND STORAGE".</li> <li>Make sure that there is no leakage from or damage to the containers.</li> <li>Take containers on board without collapse of cargo piles.</li> <li>Transport in accordance with state and local regulations.</li> </ul>				
REGULATORY INFORMATION	High Pressure Gas Safety Law: Exclusion of application Fire Defense Law: Fourth Class Petroleums Industrial Safety and Health Law: Hazardous material (flammable gas)				
OTHER INFORMATION	The information herein is given in good faith, but no warranty, expressed or implied, is made.				

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Vegetable Oil, Additive(sulfur type) in Fatty acid esters: no data found

Acute Toxicity

[Formulated Concentrate] LD50(rat; peroral administration)

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS

TOXICOLOGICAL

INFORMATION