

## MATERIAL SAFETY DATA SHEET

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **CLEAN AWAH**      NET 185ml

Company name                   : NIPPON TAKKYU CO., LTD.  
 Zip code                        : 101-0024  
 Address                         : 1-2-8, Kanda-Izumicho, Chiyoda-ku, Tokyo  
 Responsible                    : Planning department  
 Department  
 Telephone no.                 : 03-3862-0911  
 FAX                              : 03-3862-0920

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### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL PRODUCT: MIXTURE

CHEMICAL NAME	CAS No.	CONTENTS (wt%)
Polyoxyethylene Cetyl Ethers	9004-95-0	3% or less
Purified Water	7732-18-5	80~90%
Other	—	2% or less
PROPANE	74-98-6	3% or less
BUTANE	75-28-5, 106-97-8	5~10%

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### SECTION 3: HAZARDS IDENTIFICATION

DANGERS: INFLAMMABLE GAS

On loss of containment this gas can cause suffocation by lowering the oxygen content of the air in confined areas.

The gas mixes well with air, explosive mixtures are easily formed.

Contents are essentially nonirritating to skin.

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### SECTION 4: FIRST AID MEASURES

INHALATION: If high concentrations are inhaled, immediately remove to fresh air.

Call a physician.

SKIN CONTACT: In case of contact, rinse with plenty of water.

EYE CONTACT: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION: Wash out mouth with water provided person is conscious.

Give plenty of water to drink. Call a physician immediately.

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### SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING AGENT: Water, Powder or carbon dioxide.

Combat fire from a sheltered position.

Fire fighters should wear protective clothing including self-contained breathing apparatus.

Keep gas container cool by spraying with water.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED

Review fire fighting measures and handling (personnel) sections before proceeding with clean-up.

Shut off and eliminate all ignition sources. Keep people away.

Minimize breathing vapors. Minimize skin contact.

Wash away remainder with plenty of water.

Ventilate confined spaces. Open all windows and doors.

Collect leaking and spilled liquid in sealable Empty containers as far as possible.

Absorb remaining liquid in sand or inert absorbent and remove to safe place.

## SECTION 7: STORAGE AND HANDLING

Attention to the fire and high temperature.

Do not use near stove or fire.

Do not use excessively in room where fire is used.

Do not throw into fire.

Do not expose gas container under the blazing sun, and store it below 40°C.

Keep out of reach of children.

Handling does the place where ventilation is good.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT	OCCUPATIONAL EXPOSURE LIMITS(ppm)	
	Japan Society for Occupational Health	ACGIH(TLV-TWA)
PROPANE	1000	2500
BUTANE	1000	800

### PERSONAL PROTECTIVE EQUIPMENT

Eye protection : No

Skin protection : No

Respiratory protection : No

Protective gloves : No

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

[Contents] Appearance : Colorless Clear Liquid.

Melting point: 0°C

Boiling Point : 100°C

Vapor Pressure : Similar to water.

Specific Gravity : 0.997(20°C)

Solubility : Complete with water.

Volatility : -

[Propellant]	PROPANE	BUTANE
Appearance:	Colorless compressed liquefied gas	Colorless compressed liquefied gas
Liquid Density:	0.501g/cm <sup>3</sup> (20°C)	0.557~0.579g/cm <sup>3</sup> (20°C)
Vapor Density:	1.55	2.07 (Air=1)
Vapor Pressure:	0.75MPa(20°C)	0.12~0.21MPa(20°C)
Boiling Point :	-42.04°C	-0.5~-11.7°C
Melting point:	-187.69°C	-138.4~-159.6°C
Flash point:	-90°C	-72~-81°C
Auto-ignition temp.:	493°C	405~550°C
Explosive limits, vol% in air:	2.2~9.5vol%	1.8~8.5vol%
Solubility in water:	none	none

#### SECTION 10: STABILITY AND REACTIVITY

Stable under normal use condition.

[Contents] Flash Point : -°C  
 Auto-ignition temp : -°C  
 Explosive limits, vol% in air : upper- lower-  
 Self reactivity\*Explosiveness : No  
 Dust explosiveness: No

[Propellant] This product is stable and will not react violently with water.  
 Hazardous polymerization will not occur.

#### SECTION 11: TOXICOLOGICAL INFORMATION

[Contents] [Reference POE alkyl etherC<sub>18</sub>15EO]  
 Skin Corrosion: No evidence.  
 Irritation(Skin): Human 200、60%solution water 72hr nonirritating .  
 Irritation(Eye): Rabbit Draize 60% solution water.  
 Eye wash nonirritating.  
 Eye contact nonirritating.  
 Acute Toxicity (LD<sub>50</sub>): LD<sub>50</sub> rat male :3.51g/kg female:3.95g/kg  
 Carcinogenicity: No evidence. (IARC:No setting. NTP:No setting.)  
 Mutagenicity: No evidence.  
 Sensitization:Skin irritation test 7day.  
 72hr normally

[Propellant]

PROPANE:acute inhalation toxicity

10,000ppm/short-term exposure: none

100,000ppm/short-term exposure: May be dizzy by inhalation for a few minutes.

Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eyes may cause eye irritation

Based on scientific literature, this product should be regarded as a central nervous system

depressant that is capable of producing drowsiness or similar effects at concentrations near 2000 ppm.

BUTANE: acute inhalation toxicity

mouse LC<sub>50</sub> 680mg/l(about26%)2h

rat LC<sub>50</sub> 658mg/l(about25%)4h

Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eyes may cause eye irritation

Based on scientific literature, this product should be regarded as a central nervous system depressant that is capable of producing drowsiness or similar effects at concentrations near 2000 ppm.

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SECTION 12: ECOLOGICAL INFORMATION

[Contents] [Reference POE alkyl etherC<sub>18</sub>15EO]

Fish toxicity: TLm10

Other Information: No evidence

[Propellant]

Environmental effects from the substance have been investigated, but none has been found.

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SECTION 13: DISPOSAL CONSIDERATION

Use up and dispose.

Comply with local regulations.

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SECTION 14: TRANSPORTATION INFORMATION

Comply with local regulations.

UN hazard Class: 2.1

UN#: 1950

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SECTION 15: REGULATORY INFORMATION

Comply with local regulations.

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SECTION 16: OTHER INFORMATION

The information and recommendations contained herein are, to the best of knowledge and belief, accurate and reliable as of the date issued.

Our company does not warrant or guarantee their accuracy or reliability, and our company shall not be liable for any loss or damage arising out of the use thereof.