

Safety Data Sheet**1. Data on chemical substance, etc. and company**

Product name: LS Bell Hammer 100 mL Mini Spray
 Company name: Suzuki Kikoh Co., Ltd.
 Address: 316-3, Matsuhidai, Matsudo, Chiba, 270-2214
 Emergency contact: TEL: 047-385-5311 Fax: 047-385-5313

2. Summary of potential health hazards

GHS classification and label elements of product

GHS classification

Physical hazard Aerosol: Category 1

Health hazard Specific target organ toxicity (single exposure): Category 3 (anesthetic action)

GHS label elements



Signal

Danger

Hazard statement

Extremely flammable or ignitable aerosol
 High pressure container may explode when heated
 May cause drowsiness and dizziness

Physical and chemical hazards

Ignitable gas under pressure is enclosed, posing risk of explosion caused by heat, impact or the like.
 Readily flammable liquid. Accumulated vapor poses risk of explosion.
 Readily flammable gas is enclosed. Accumulated gas poses risk of explosion.
 Risk of ignition and combustion at elevated temperatures.

3. Composition and ingredient statement

Chemical substance or mixture: Mixture

Ingredients and composition

Ingredient/chemical name	Content (%)	CAS No.	No. as per Chemical Substances Control Law
Mineral oil	50-60	Not disclosed	-
n-butane	20-30	106-97-8	(2)-4
Propane	10-20	74-98-6	(2)-3
Isobutane	1-10	75-28-5	(2)-4

Notice: These values are not product design values.

Refer to Section 15 "Applicable laws and regulations" for ingredients that are subject to the Industrial Safety and Health Act and the Pollutant Release and Transfer Register Act (PRTR Act).

4. First-aid treatment

If inhaled:	Take the patient to a place with fresh air and make him/her comfortable for breathing. See a doctor if feeling unwell.
If in contact with skin:	Quickly wipe off with dry, clean cloth. Do not use solvent or thinner. Wash with plenty of water and soap. See a doctor if change in appearance, irritation or pain occurs or if feeling unwell.
If in eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Ensure that the entire area inside eyes is washed by water. If eye irritation persists, seek diagnosis/treatment by a doctor.
If swallowed:	Do not let the patient swallow vomit. Do not induce vomiting without medical advice. Keep the patient at rest and immediately seek treatment by a doctor.
Protection of first-aid staff:	Rescuers must wear protective equipment such as rubber gloves and sealed goggles. Properly ventilate the area.

5. Firefighting measures

Extinguishing media	Suitable extinguishing media In case of fire, use foam, powder or carbon dioxide gas to extinguish.
Advice for firefighting staff	Specific firefighting method Sprinkle water to cool sealed containers exposed to heat. Carry out firefighting activities from the windward side. Quickly remove flammable goods from surrounding areas. Since aerosol products may explode when exposed to heat, carry out firefighting operations from a sufficient distance.
Protection of first-aid staff:	Wear proper protection (e.g. heat-resistant clothing).

6. Accidental release measures

Personal precautions:	Carry out the work using proper protective gears (gloves, protective mask, apron, goggles and so on).
Protective equipment and emergency action:	Prohibit unauthorized access to the surrounding area to prevent secondary dis.
Environmental precautions:	Pay attention not to cause environmental impacts by, for example, discharge into rivers or the like.
Method and materials for containment and purification:	Collect the leaked substance in a sealable container and transfer it to a safe place. Dispose of contaminated materials and wastes in accordance with relevant laws and regulations.
Prevention of secondary	Prepare for using appropriate fire extinguishers to cope with possible ignition. Quickly remove ignition sources, hot objects, and flammable goods from surrounding areas.

7. Precautions for handling and storage

Handling

Technical measures:	(To prevent exposure of handlers to chemical) Avoid breathing powder dust/fumes/gas/mist/vapors/spray.
	(To prevent fire and explosion) Keep away from ignition sources such as heat/sparks/open flame/hot objects. No smoking. Do not spray on an open flame or other ignition source.
Precautions for safe handling:	Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not attempt to burn or poke a hole even after the product have been spent.
Incompatibility	Suitable storage conditions
Safe storage conditions:	Store in a well-ventilated place. Store in a closed container. Store locked up.
	Storage conditions to be avoided: Protect from sunlight. Do not expose to temperatures exceeding 40°C.

8. Exposure prevention and protection

Exposure limits

Ingredient name	Exposure limits	
	Japan Society for Occupational Health	ACGIH
n-butane	500 ppm (1998)	STEL: 1,000 ppm (central nervous system disorder) (FY2012)
Propane	Not specified	Suffocative
Isobutane	500 ppm (1988)	STEL: 1,000 ppm (central nervous system disorder) (FY2012)

Exposure prevention

Equipment and facilities	Handle in a properly ventilated place. Provide exhaust/ventilation equipment.
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Protective

Respiratory protection	Wear respiratory protection.
Hand protection	Wear protective gloves.
Eye protection	Wear eye/face protection.
Skin and body protection	Wear protective clothing.

9. Physical and chemical properties

Basic data on physical and chemical properties

Physical state

Form	Liquid
Color	Brownish
Odor	Characteristic odor

Temperatures/temperature ranges for change in physical state

Initial BP/boiling point	-42°C (BP of propane)
Flash point	-104°C (BP of propane)
Autoignition point	365°C
Explosion properties	Ignition or explosion limits
Lower limit	1.8 vol%
Upper limit	9.5 vol%
Specific gravity/density	0.67-0.71 g/cm ³

10. Stability and reactivity

Chemical stability: Aerosol canisters may explode when heated to 40°C or higher.

Possible hazardous reactions: Reactive with oxidizing agents or the like.

Conditions to be avoided: Avoid heat, sparks, open flame and other ignition sources.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: Harmful gases such as carbon monoxide, nitrogen oxides and low molecular monomers will be generated by combustion.

11. Hazard statement

Toxicological impact data

Acute inhalation toxicity	Isobutane gas: mouse LC50 = 11000 ppm/4hr (ACGIH, 2004)
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Immediate impact due to short-term exposure and delayed/chronic impact due to prolonged exposure

Specific target organ toxicity

Specific target organ toxicity (single exposure)	[Category 2]
	Isobutane Heart
	[Category 3 (anesthetic action)]
	(n-butane) Anesthetic action
	(Propane) Anesthetic action
	(Isobutane) Anesthetic action

12. Environmental impact data

Water solubility

(n-butane)	0.0061 g/100 mL (20°C) (ICSC, 2003)
(Propane)	0.007 g/100 mL (20°C) (ICSC, 2003)
(Isobutane)	Insoluble (ICSC, 1998)

Bioaccumulation potential

(Propane)	log Pow = 2.36 (ICSC, 2003)
(Isobutane)	log Pow = 2.8 (ICSC, 1998)
(n-butane)	log Pow = 2.89 (ICSC, 2003)

Other information

In the event of leakage or disposal of the product, handle with due care to avoid causing environmental impacts.
In particular, take appropriate measures to ensure the product and used washing water are not directly discharged to the ground, rivers or drainage channels.

13. Disposal considerations

Waste management methods

Avoid environmental release.
Dispose of contents/container in accordance with national/local regulations.
Do not employ incineration for disposal of aerosol products.
Before discarding an aerosol product, use up contents and completely drain remaining gas by holding down the button outdoors without presence of fire until spraying sound diminishes and ceases.
Never discard non-empty aerosol canisters.
When draining residual gas, be careful about fire, as well as inhalation of mist.

Contaminated container and package

Do not attempt to combust or poke a hole even after the product have been spent.

14. Transport precautions

UN number/UN classification

Number	1950
Product name (UN transport name)	Aerosol, flammable
UN classification (Hazard class of transport)	2.1
ERG guide number	126

15. Applicable laws and regulations

Safety- and environment-related rules and laws specific to the product
Poisonous and Deleterious Substances Control Act: Not applicable.

Industrial Safety and Health Act

Hazardous/harmful substances whose name must be indicated as per Article 57-2 and Appended Table 9, Art. 18-2 of Order for Enforcement of the Act (Revised in response to amendments on June 1, 2016):

Mineral oil; n-butane; isobutane

Dangerous substances listed in Appended Table 1 (related to Articles 1, 6 and 15):

Dangerous substance, flammable gas (Group 5 in Appended Table 1 of the O

Hazardous/harmful substances to be notified as per Article 57-2 and Appended Table 9, Art. 18-2 of Order for Enforcement of the Act (Revised in response to amendments on June 1, 2016):

Mineral oil; n-butane; isobutane

Pollutant Release and Transfer Register Act (PRTR Act): Not applicable.

Fire Service Act:

Group 4 hazardous substance (flammable liquid), Type 4 petroleum; Hazard Class III

High Pressure Gas Safety Act:

This aerosol product is not subject to the Act because of its internal volume of 1 L or less and pressure of 0.8 MPa or less at 35°C.

Ship Safety Law:

Class 2 (Gases), Subclass 2.1 (Flammable gases)

Civil Aeronautics Act:

Class 2 (Pressurized gases), Subclass 2.1 (Flammable gases)

Water Pollution Prevention Act:

Subject to effluent standards (living environment-related items) stipulated for specific business sites with daily average drainage volume of 50 m³ or more.

Mineral oil

16. Other information

References

United Nations, Globally Harmonized System of Classification and Labeling of Chemicals, 5th edition (2013)

United Nations, Recommendations on the Transport of Dangerous Goods, 19th edition EC No. 618/2012, Classification, Labeling and Packaging of Substances and Mixtures, Table 3-1

US Department of Transport, Emergency Response Guidebook 2012

ACGIH, 2017 TLVs and BEIs

<http://monographs.iarc.fr/ENG/Classification/index.php>

JIS Z 7253 (2014)

JIS Z 7252 (2019)

Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits 2016

Supplier's data/information

Disclaimer

This document is based on the materials, data and information available at the time of creation, and thus subject to change in accordance with new findings. In addition, precautions herein are intended for normal handling of the product. If the product is to be handled in a special or irregular manner, sufficient safety measures must be provided. GHS classification categories herein are calculated and determined based on the current data announced by a public agency in Japan, as well as the voluntary standards of Japan Paint Manufacturers Association.