

# SAFETY DATA SHEET

## SikaSense®-4651



Version  
3.1

Revision Date:  
18.04.2025

SDS Number (Internal):  
100000040620

Date of last issue: 02.04.2025  
Date of first issue: 10.12.2021

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SikaSense®-4651

#### Recommended use of the chemical and restrictions on use

Product use : Adhesive

#### Manufacturer or supplier's details

Company : Sika Korea Ltd.  
724, Anseongmatchum-daero  
Miyang-myeon  
Anseong-si  
Gyeonggi-do  
Korea

Telephone : +82-31-8056-7777

Emergency telephone number : +82-31-8056-7777

E-mail address : ehs@kr.sika.com

Telefax : +82-31-8056-7788

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 2

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

Long-term (chronic) aquatic hazard : Category 2

#### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.

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H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

### Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharges.  
P261 Avoid breathing mist or vapours.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391 Collect spillage.

### Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

### Disposal:

P501 Dispose of contents/ container according to waste-related laws

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### Other hazards which do not result in classification

No data available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Components

Chemical name	Common Name	CAS-No.	Concentration (% w/w)
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	64742-49-0	>= 45 - < 50
methylcyclohexane	methylcyclohexane	108-87-2	>= 15 - < 20
butanone	butanone	78-93-3	>= 10 - < 15

### 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.
- In case of eye contact : Remove contact lenses.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.  
No known significant effects or hazards.  
Loss of balance  
Vertigo  
See Section 11 for more detailed information on health effects and symptoms.
- Notes to physician : Treat symptomatically.

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### 5. FIREFIGHTING MEASURES

#### Suitable and unsuitable extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : Water
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known
- Specific extinguishing methods : Use water spray to cool unopened containers.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- 

### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Remove all sources of ignition.  
Deny access to unprotected persons.
- Environmental precautions : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
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### 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Use explosion-proof equipment.  
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
Take precautionary measures against electrostatic discharges.
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- Advice on safe handling : Do not breathe vapours or spray mist.  
Avoid exceeding the given occupational exposure limits (see section 8).  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Take precautionary measures against static discharge.  
Open drum carefully as content may be under pressure.  
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).  
Follow standard hygiene measures when handling chemical products
- Conditions for safe storage : Store in original container.  
Store in cool place.  
Keep in a well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Store in accordance with local regulations.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methylcyclohexane	108-87-2	TWA	400 ppm	KR OEL
		TWA	100 ppm	ACGIH
butanone	78-93-3	TWA	200 ppm	KR OEL
		STEL	300 ppm	KR OEL
		TWA	75 ppm	ACGIH
		STEL	150 ppm	ACGIH

Other ingredients, which are listed in section 3 but not listed in this section, do not have established occupational exposure limit values.

#### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
butanone	78-93-3	methyl ethyl ketone	Urine	End of shift (As soon as possible after exposure ceases)	2 mg/l	ACGIH BEI

**Personal protective equipment.** Among the following personal protective equipment, the PPEs which require safety certification need to be certified by KOSHA.

- Respiratory protection : Use respiratory protection unless adequate local exhaust

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ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

- Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.
- 

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : No data available
- Odour : solvent-like
- Odour Threshold : No data available
- pH : No data available
- Melting point/ range / Freezing point : No data available
- Boiling point/boiling range : ca. 80 °C (176 °F)
- Flash point : -10 °C (14 °F)  
(Method: closed cup)
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available

#### Upper/lower flammability or explosive limits

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Upper explosion limit / Upper flammability limit : 7 %(V)

Lower explosion limit / Lower flammability limit : 1 %(V)

Vapour pressure : 88.9924 hPa

Solubility(ies)  
Water solubility : No data available  
Solubility in other solvents : No data available

Density : ca. 0.79 g/cm<sup>3</sup> (20 °C)

Partition coefficient: n-octanol/water : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available

Viscosity  
Viscosity, dynamic : ca. 100 mPa.s (20 °C (68 °F))  
Viscosity, kinematic : > 20.5 mm<sup>2</sup>/s ( 40 °C (104 °F))

Explosive properties : No data available  
Oxidizing properties : No data available

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### 10. STABILITY AND REACTIVITY

Chemical stability and possibility of hazardous reactions : Reactivity:  
No dangerous reaction known under conditions of normal use.  
Chemical stability:  
The product is chemically stable.  
Possibility of hazardous reactions:  
Stable under recommended storage conditions.  
Possibility of hazardous reactions:  
Vapours may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : No data available

Hazardous decomposition products : No hazardous decomposition products are known.

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### 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : No data available

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exposure

### Health hazard information

#### Acute toxicity

No data available

#### Components:

##### butanone:

Acute oral toxicity : LD50 Oral (Rat): 3,300 mg/kg

Acute inhalation toxicity : LC50 (Rat): 36 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

##### Respiratory sensitisation

No data available

##### Skin sensitisation

No data available

#### Carcinogenicity

No data available

#### Components:

##### Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

No data available

##### methylcyclohexane:

No data available

##### butanone:

No data available

#### Germ cell mutagenicity

No data available

#### Components:

##### Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

No data available

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### **methylcyclohexane:**

No data available

### **butanone:**

No data available

### **Reproductive toxicity**

No data available

### **Components:**

#### **Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:**

No data available

### **methylcyclohexane:**

No data available

### **butanone:**

No data available

### **STOT - single exposure**

May cause drowsiness or dizziness.

### **STOT - repeated exposure**

No data available

### **Repeated dose toxicity**

No data available

### **Aspiration toxicity**

No data available

### **Experience with human exposure**

No data available

### **Toxicology, Metabolism, Distribution**

No data available

### **Neurological effects**

No data available

### **Further information**

No data available

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### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components:

##### Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 12.51 mg/l  
Exposure time: 96 h

#### Persistence and degradability

No data available

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Other adverse effects

##### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.

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### 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : Send to a licensed waste management company.

The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.

Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

#### Disposal precautions

Dispose of contents and container according to wastes control act.

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### 14. TRANSPORT INFORMATION

#### International Regulations

UNRTDG

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UN number : UN 1133  
Proper shipping name : ADHESIVES  
Class : 3  
Packing group : II  
Labels : 3  
Environmentally hazardous : yes

### IATA-DGR

UN/ID No. : UN 1133  
Proper shipping name : Adhesives  
Class : 3  
Packing group : II  
Labels : Flammable Liquids  
Packing instruction (cargo aircraft) : 364  
Packing instruction (passenger aircraft) : 353  
Environmentally hazardous : yes

### IMDG-Code

UN number : UN 1133  
Proper shipping name : ADHESIVES  
Class : 3  
Packing group : II  
Labels : 3  
EmS Code : F-E, S-D  
Marine pollutant : yes

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### National Regulations

Refer to section 15 for specific national regulation.

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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## 15. REGULATORY INFORMATION

### National regulatory information

#### Regulation under the Occupational Safety and Health Act

#### Harmful Substances Prohibited from Manufacturing

Not applicable

#### Harmful Substances Required Permission for Manufacture

Not applicable

#### Harmful Agents to be kept below Occupational Exposure Limits

Chemical name	CAS-No.
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Methylcyclohexane	108-87-2
Methyl ethyl ketone	78-93-3

### Harmful Agents Required to be kept below Permission Levels

Not applicable

### Hazardous substances requiring management

Chemical name	CAS-No.	Threshold limits (%)
Methyl ethyl ketone	78-93-3	>= 1 %

### Special Management Materials

Not applicable

### Controlled Substances Subject to Environment Monitoring

Chemical name	CAS-No.	Threshold limits (%)
Methyl ethyl ketone	78-93-3	>= 1 %

### Controlled Substances Subject to Health Examination

Chemical name	CAS-No.	Threshold limits (%)
Methyl ethyl ketone	78-93-3	>= 1 %

### Hazardous Substances Subject to Process Safety Management (PSM) Reporting Obligation

Chemical name/Classification	Manufacturing or handling quantity	Storage quantity
Flammable liquids	5,000 kg	200,000 kg

### K-OSHA Hazardous Substances (Occupational Safety and Health Regulations, Table 1)

Category
Flammable liquid

### K-OSHA Hazardous Substances (Occupational Safety and Health Regulations, Table 9)

Category	Manufacturing or handling quantity
Flammable liquid	400 litre

### Regulation under the Chemicals Control Act

#### Toxic Chemicals

Not applicable

#### Restricted Chemicals

Not applicable

#### Prohibited Chemicals

Not applicable

### Toxic Release Inventory

Chemical name	CAS-No.	Group	Threshold limits (%)
Methyl ethyl ketone	78-93-3	Group II	>= 1 %

### Accident Precaution Chemicals

Not applicable

### Dangerous Substances Safety Management Act

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Classification : Group 4, Flammable liquids, Type 1 petroleums, Water insoluble liquid

Hazard rank : Hazardous rank II

Designated Quantity : 200 litre

Safety Warning : Keep away from fire

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Not applicable

### 라. Wastes Control Act

Industrial general wastes  
Follow article 13 of the act to dispose the product waste

### 마. Other requirements in domestic and other countries

#### The components of this product are reported in the following inventories:

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

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## 16. OTHER INFORMATION

Issuing date : 10.12.2021

**Revision number and date**

Number of Revision : 3.1

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Date format : yyyy/mm/dd

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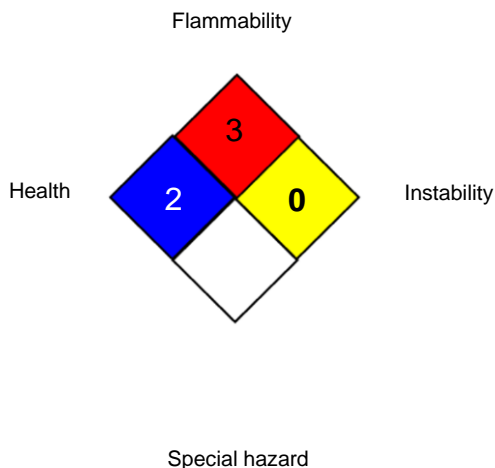
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### NFPA:



### Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
KR OEL	:	Harmful Agents to be kept below Occupational Exposure Limits
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
KR OEL / TWA	:	Time Weighted Average
KR OEL / STEL	:	Short Term Exposure Limit
ADR	:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	:	Chemical Abstracts Service
DNEL	:	Derived no-effect level
EC50	:	Half maximal effective concentration
GHS	:	Globally Harmonized System
IATA	:	International Air Transport Association
IMDG	:	International Maritime Code for Dangerous Goods
LD50	:	Median lethal dose (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50	:	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	:	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
OEL	:	Occupational Exposure Limit
PBT	:	Persistent, bioaccumulative and toxic
PNEC	:	Predicted no effect concentration
REACH	:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemi-

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SVHC : calcs (REACH), establishing a European Chemicals Agency  
vPvB : Substances of Very High Concern  
: Very persistent and very bioaccumulative

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

KR / EN