

## Safety Data Sheet

### 1. Product and company identification

Product name : n-Butyl Acetate  
Name of manufacturer : KANTO CHEMICAL CO., INC.  
Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, Japan  
Name of section : Electronic materials division technical department  
Telephone number : +81-3-6214-1080  
Facsimile number : +81-3-3241-1043  
Mail address : el-info@gms.kanto.co.jp  
SDS No. : GE00048

### 2. Summary of danger and Hazard

#### GHS classification

##### Physical and chemical hazard

Flammable liquids : Category 2  
Pyrophoric liquids : Out of category  
Corrosive to metals : Out of category

##### Human health hazard

Acute toxicity(oral) : Out of category  
Acute toxicity(dermal)  
: Out of category  
Skin corrosion • Irritation  
: Out of category  
Serious eye damage • Eye irritation  
: Category 2B  
Specific target organ systemic toxicity(single exposure)  
: Category 3 (respiratory tract irritation) 、 Category 3 (anesthetic action)

##### Environmental hazard

Hazardous to the aquatic environment-acute hazard  
: Category 3  
Hazardous to the aquatic environment-chronic hazard  
: Out of category

#### Pictogram or symbol



Signal word : Danger  
Hazard statement : Highly flammable liquid and vapor  
Causes eye irritation  
May cause respiratory irritation  
May cause drowsiness and dizziness

Harmful to aquatic life

Cautions

- Safety measurements : Keep away from ignition sources such as heat, sparks, or open flame.  
Keep containers tightly closed.  
Ground container and receiving equipment in case of transport and stirring.  
Use explosion-proof apparatus.  
Use only non-sparking tools.  
Avoid breathing dust, mist, and vapor.  
Use only in a well-ventilated area.  
Avoid release to the environment.  
Wear appropriate protective gloves, glasses, clothing, face shield, or mask.
- First-aid measures : If inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical treatment if you feel unwell.  
  
If in eyes : Rinse cautiously with water for several minutes. Get medical treatment.  
If on skin : Remove contaminated clothing and the substance. Get medical treatment, if you feel unwell.  
Wash hands thoroughly after handling.
- Storage : Tightly container closed and store in a well-ventilated area.  
Store locked up.
- Disposal : Dispose of contents and containers appropriately in accordance with related regulations.

3. Composition/Information on ingredients

- Substance/Mixture : Substance  
Chemical name or commercial name : Butyl acetate  
Ingredients and composition : Butyl acetate min. 99.8%  
Chemical formula : CH<sub>3</sub>COOCH<sub>2</sub>(CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>  
CAS No. : 123-86-4  
TSCA Inventory : Registered  
EINECS No. : 2046581  
Dangerous and hazardous ingredients : Butyl acetate

4. First aid measures

- Inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.
- Skin contact : Wash the affected areas under running water.
- Eye contact : Wash the affected areas under running water for at least 15 minutes.  
If necessary, get medical treatment.

Ingestion : Give the victim water or salt water and make him vomit. Get medical attention.

Protection for first aid person

: Saviors wear proper protective equipment like rubber gloves, goggles.

#### 5. Fire fighting measures

Extinguishing media : Dry chemical powder, carbon dioxide, dry sand, foam

Prohibited extinguishing media

: Water spray

Particular fire fighting : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.

Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Foam extinguisher is effective for a large scale fire.

Protection for firefighters

: Wear breathing apparatus.

#### 6. Accidental release measures

Cautions for personnel : Wear proper equipment and avoid contact with skin and inhalation of vapor. Keep personnel removed from and upwind of fire. Shut off all sources of ignition. Keep away personnel except for authorized ones from spillage area by stretching ropes.

Cautions for environment : Attention should be given not to cause damage to the environment by flowing of spillage to rivers. In case of the dilution of copious water, do not cause damage to the environment by untreated wastewater.

Removal measure : Absorb spill with inert material (e.g., diatomaceous earth, sand) and flush residual area with copious amounts of water.

Prevention of second accident

: Remove nearby sources of ignition and prepare extinguishing media.

#### 7. Cautions of handling and storage

Handling

Engineering measures : Wear proper equipment not to contact with skin or inhale the vapor. Fire is strictly prohibited.

Ventilate well at working places.

Cautions for safety handling

: Use with an enclosed system or a local exhaust ventilation.

Cautions : Do not contact with oxidizing substances.

Storage

Adequate storage condition

: Store in a dark, cool place and tightly closed.

Safety adequate container materials

: Glass, fluorine resin, stainless steel

Do not use vinyl chloride resin, acrylic resin, polystyrene etc.

#### 8. Exposure control/Personal protection

Engineering measures : Use only with adequate ventilation and in closed systems.

Control parameters

ACGIH(2009) : 150ppm(TLV-TWA)  
200ppm (TLV-STEL)

Protective equipment

Respiration protective equipment

: Chemical cartridge respirator with an organic vapor cartage or airline respirator

Hands protective equipment

: Impervious protective gloves

Eyes protective equipment

: Safety goggles

Skin and body protective equipment

: Protective clothing, protective boots

9. Physical and chemical properties

Appearance : Liquid

Color : Colorless

Odor : Fruit like odor

Boiling point : 126.1°C

Melting point : -73.5°C

Flash point : 22°C

Auto-ignition point : 421°C

Explosion characteristics

Explosion limit : upper : 8.0vol% lower : 1.4vol%

Vapor pressure : 13hPa(20°C)

Vapor density : 4.0

Specific gravity : 0.88g/cm<sup>3</sup> (20°C)

Solubility

Solubility in solvents : Water ; 0.8%(15°C)

Soluble in many kinds of organic solvents

log Pow : 0.730

Other data : Viscosity : 0.734cP(20°C)

10. Stability and reactivity

Stability : Stable under normal usage.

Reactivity : May react with oxidizing substances.

Incompatible conditions : Light, heat

Incompatible materials : Oxidizing substances

Hazardous decomposition products

: Carbon monoxide

11. Toxicological information

Acute toxicity : Oral : Out of category

Dermal : Out of category

Inhalation(vapor) : Not possible to classify because of insufficient data.

Inhalation(dust, mist) : Not possible to classify because of insufficient data.

rat oral LD50>3200mg/kg

rabbit skin LD50>5000mg/kg

Skin corrosiveness : Out of category

Based on the description that at skin irritation test (Draize test) using rabbits, the irritation was mild such that engorged capillary was recognized with difficulty. Furthermore, at the description of irritation test using rabbits, and the test applied 4% water solution to human, no irritation was recognized at both of tests. From these results, it was classified into out of category.

Irritation to skin, eyes : Causes eye irritation(category 2B)

From eye irritation test applied 0.1ml of the undiluted substance to rabbits eyes, the strongest irritation was observed in 24 hours later, the mean score was less than 1 at cloudy cornea, 0 at iris, 1 at conjunctival redness, less than 1 at conjunctival chemosis. Maximum mean average score was 7.5 and less than 30, since the irritation was almost recovered until 7 days, it was set into category 2B.

Respiratory sensitization or Skin sensitization

: Respiratory sensitization : Not possible to classify because of insufficient data.

Skin sensitization : Not possible to classify because of insufficient data.

At the skin sensitization test (maximization test) using guinea pig, the result was no sensitization, and skin sensitization test (repeated insult patch-test) of 50 human subjects, no sensitized subjects was recognized, so it was set into out of category.

Mutagenicity : Not possible to classify because of insufficient data.

Carcinogenic effects : Not possible to classify because of insufficient data

Effects on the reproductive system

: Not possible to classify because of insufficient data.

Specific target organ systemic toxicity single exposure

: May cause respiratory irritation(category 3) - May cause drowsiness and dizziness(category 3)

This material is a respiratory tract irritation (Japan society for Occupational Health: proposed statement of the reasons of allowable concentration (1994)).

In humans, there is the report of headache, nausea, high concentration in dizziness, difficulty breathing, loss of consciousness, weakness by the steam inhalation exposure. In experimental animals, incoordination, effort respiration, anesthetic action, were observed in the inhalation exposure of 1.3 mg/L of rat, difficulty breathing

was observed in the inhalation exposure of 32.6 mg/L of rat, central nervous system depression, incoordination, weakness, decrease in body temperature were observed in oral administration of 10,736mg/kg of the rat, mouse. Symptoms such as incoordination that have been reported in the inhalation exposure of rats, was considered to be due to narcotic effects of this substance. From the above, the substance is determined as respiratory irritant and anesthetic action, it was classified into category 3 (respiratory tract irritation, narcotic effects).

Specific target organ systemic toxicity repeated exposure

: Not possible to classify because of insufficient data.

Aspiration hazard

: Not possible to classify because of insufficient data.

12. Ecological information

Ecotoxicity

Fish toxicity

: Harmful to aquatic life(category 3)

Chronic aquatic toxicity : Out of category

Pimephales promelas LC50=18mg/L/96H

Rediualbility and degradability

: Not available

Ecorediualbility

: Not available

13. Disposal consideration

Residual disposal

: Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Containers

: In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

UN class

: Class 3(Flammable liquids) P. G. II

UN number

: 1123

Marine regulation information

UN No.

: 1123

Proper shipping name

: BUTYL ACETATES

Class

: 3

Sub risk

: -

Packing group

: II

Marine pollutant

: Not applicable

Aviation regulation information

UN No.

: 1123

Proper shipping name

: Butyl acetates

Class

: 3

Sub risk

: -

Packing group

: II

15. Regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

## 16. Other information

### References

Dictionary of Organic Compounds, The society of Synthetic Organic Chemistry, Kodansha Ltd. (1985)

Solvents Handbook, T, Asahara et al, Kodansha Scientific Ltd. (1976)

Dangerous Properties of Industrial Materials, 6th ed. N. I. Sax Van Nostrand Reinhold Company (1984)

Handbook of Dangerous Substances Springer-Verlag Tokyo (1991)

Handbook of 15710 Chemical Products, The Chemical Daily Co. (2010)

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253, and it has the same required elements on the Material Safety Data Sheet (MSDS) which is prepared based on JIS Z7250:2010.