

Safety Data Sheet

1. Chemical product and company identification

Product name : n-BUTYL ACETATE

Company information

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@kanto.co.jp
 Reference No : GE00048 1.2
 Recommended uses and restrictions : Electronic chemicals

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 2
Health hazards	Serious eye damage/eye irritation	Category 2B
	Specific target organ toxicity (single exposure)	Category 3 (narcosis)
	Specific target organ toxicity (single exposure)	Category 3 (respiratory tract irritation.)
Environmental hazards	Aquatic acute	Category 3

Hazard pictograms



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor
 Causes eye irritation
 May cause respiratory irritation
 May cause drowsiness or dizziness
 Harmful to aquatic life

Precautionary statements

Prevention : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting equipment.
 Use only non-sparking tools.
 Take action to prevent static discharges.
 Avoid breathing mist/vapors.
 Wash hands, forearms and face thoroughly after handling.
 Use only outdoors or in a well-ventilated area.

- Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
- Response : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
- Storage : Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
- Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3. Composition/information on ingredients

- Distinction of substance or mixture : Substance
Synonyms : Butyl acetate

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
n-Butyl Acetate	min. 99.8	CH ₃ COOCH ₂ (CH ₂) ₂ CH ₃	Listed	204-658-1	123-86-4

4. First aid measures

First aid measures

- First-aid measures after inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.
- First-aid measures after skin contact : Wash the affected areas under running water.
- First-aid measures after eye contact : Wash the affected areas under running water for at least 15 minutes. If necessary, get medical treatment.
- First-aid measures after ingestion : The chemical is volatile. Do not induce vomiting because it increases the risk of aspiration into the lungs. Get medical attention immediately. If necessary, rinse mouth with water.
- Personal Protection in First Aid and Measures : Rescuers should wear proper protective equipment like rubber gloves, goggles.

Most Important Symptoms/Effects

- Symptoms/effects : Inhalation causes cough, headache, feeling of fatigue, and lethargy.

5. Fire fighting measures

- Suitable extinguishing media : Dry chemical, CO₂, dry sand, or alcohol-resistant foam
- Unsuitable extinguishing media : Water spray, Foam extinguisher
- Firefighting instructions : 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.
Fight fire from windward.
Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Alcohol-resistant foam extinguisher is effective for a large scale fire.

Personal protection (Emergency response) : Wear breathing apparatus.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Wear proper protective equipment and avoid contact with skin and inhalation of vapor. Conduct operations from upwind and evacuate people downwind. Remove all sources of ignition. Keep away personnel except for authorized ones from spillage area by stretching ropes.

Environmental precautions

Environmental precautions : Attention should be given to avoid damage to the environment by flowing of spillage to rivers.

Methods and Equipment for Containment and Cleaning up

For containment : Absorb spill with inert material (e.g, diatomaceous earth, sand) and flush spillage area with copious amounts of water.
Prevention Measures for Secondary Accidents : Remove nearby sources of ignition and prepare extinguishing media.

7. Handling and storage

Handling

Technical measures : Wear proper protective equipment to avoid contact with skin or inhalation of vapor. Fire is strictly prohibited.
Ventilate well at working places.
Precautions for safe handling : Use with an enclosed system or a local exhaust ventilation. Use in well-ventilated areas.
Do not allow contact with oxidizing substances.

Storage

Storage conditions : Store in a dark, cool place and tightly closed.
Material used in packaging/containers : Glass, stainless steel.
Do not use vinyl chloride resin, acrylic resin, polystyrene etc.

8. Exposure controls / Personal protection equipment

ACGIH TWA	150 ppm
ACGIH STEL	200 ppm

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

Protective equipment

Respiratory protection : If necessary, wear gas mask for organic solvents or airline respirator.

Hand protection : Impervious protective gloves



Eye protection : Safety goggles
Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

Physical state : Liquid
Color : Colorless.
Odor : Fruit like
pH : No data available
Melting point : -73.5 ° C
Freezing point : No data available
Boiling point : 126.1 ° C
Flash point : 22 ° C (C.C.)
Auto-ignition temperature : 421 ° C
Decomposition temperature : No data available
Flammability : Flammable
Vapor pressure : 13 hPa (20°C)
Relative density : No data available
Density : 0.88 g/cm³ (20°C)
Relative gas density : 4
Solubility : Organic solvents: Soluble in many kinds of organic solvents.
Water: 0.8 % (15°C)
Partition coefficient n-octanol/water (log Pow) : 1.82
Explosive limits (vol %) : 1.4 - 8.0 vol %
Viscosity, kinematic: : 0.83 mm²/s (20°C)
Particle characteristics : No data available

10. Stability and reactivity

Reactivity : May react with oxidizing substances.
Hydrolyze with alkali hydroxide.
Transesterify with methanol or ethanol.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Stable under normal conditions of use.
Conditions to avoid : Light, heat.
Incompatible materials : Oxidizing substances.
Hazardous decomposition products : Carbon monoxide.

11. Toxicological information

Acute toxicity (oral) : No classification
rat LD50>3200-14130mg/kg
Acute toxicity (dermal) : No classification
rabbit LD50>5000mg/kg
Acute toxicity (inhalation) : No classification (gas)
Classification not possible (vapor)
Classification not possible (dust, mist)



Skin corrosion/irritation	: No classification There are reports that after application of this substance (99.6%) to rabbits for 4 hours, no irritative reaction was observed and scores of eschar formation and edema were both 0, and that no irritation was observed in a test with guinea pigs. In addition, there is a report that it was not irritating in a patch test by 48-hour occlusive application of 4% of this substance to volunteers.
Serious eye damage/irritation	: Causes eye irritation There is a report that after application of 0.1 mL of this substance to the eyes of rabbits, slight to moderate iritis was observed but this disappeared after 48 hours, and there were multiple results with mild irritation or no irritation in other eye irritation tests with rabbits. In addition, there is a report that very slight irritation was observed in volunteers exposed to this substance (70-1400 mg/m ³). From the above results, it was classified into category 2B.
Respiratory sensitization	: Classification not possible
Skin sensitization	: Classification not possible Classification not possible due to lack of data. Besides, although there are reports that no sensitization was observed in a test with guinea pigs or in an ear swelling test with mice, and there is a description no sensitization was observed in humans, since details of the test methods and results were unknown, the data were judged to be inadequate for classification.
Germ cell mutagenicity	: Classification not possible There are no in vivo data. As for in vitro, it was negative in bacterial reverse mutation tests and a chromosomal aberration test with cultured mammalian cells.
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Classification not possible No effects on the developmental toxicity and fertility in female animals were observed. However, since the information on the fertility in male animals was not sufficient, it was classified as "Classification not possible."
STOT-single exposure	: May cause drowsiness or dizziness May cause respiratory irritation In humans, headache and nausea by inhalation exposure of the vapour, and dizziness, dyspnea, unconsciousness and weakness at high concentrations were reported. As for experimental animals, ataxia, forced respiration and narcotic effects by an inhalation exposure of rats at 1.3 mg/L, dyspnea as well as these symptoms by an inhalation exposure of rats at 32.6 mg/L were observed. Symptoms such as coordination ataxia reported in an inhalation exposure of rats were considered to be due to narcotic effects of this substance. From the above, this substance was judged to have respiratory tract irritation and narcotic effects, and it was classified into category 3 (respiratory tract irritation, narcosis).



STOT-repeated exposure : Classification not possible
 As for experimental animals, in a study in which rats were exposed by inhalation to this substance for 13 weeks, only effects on the respiratory organs were observed at high concentrations corresponding to "Not classified". In addition, there is a description that also in a test in which guinea pigs were exposed by inhalation to this substance for 28 days, no effects were observed in a hematological test, urine examinations and pathological examination at 4840 mg/m³. However, there was no toxicity information through other routes and findings in humans, therefore, it was classified as "Classification not possible" due to lack of data.

Aspiration hazard : Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute : Harmful to aquatic life
 Pimephales promelas LC50=18mg/L/96h
 Aquatic chronic : No classification
 Desmodesmus subspicatus EC10=296mg/L/72h

Persistence and degradability

Readily biodegradable
 BOD : 98%

Bioaccumulative potential

Low bioconcentration
 BCF : 10

Mobility in soil

High mobility
 Koc : 19

Hazardous to the ozone layer

Ozone : Classification not possible

13. Disposal considerations

Ecological waste information : Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.
 Contaminated container and packaging : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

International Regulations

Transport by sea (IMDG)

UN-No. (IMDG) : 1123
 Proper Shipping Name (IMDG) : BUTYL ACETATES
 Packing group (IMDG) : II
 Transport hazard class(es) (IMDG) : 3

Air transport(IATA)

UN-No. (IATA) : 1123
Proper Shipping Name (IATA) : Butyl acetates
Packing group (IATA) : II
Transport hazard class(es) : 3

(IATA)

Marine pollutant : Not applicable

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

Pollutant category : Y
MFAG-No : 129

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : 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 17322 Chemical Products, The Chemical Daily Co. (2022) .
NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology and Evaluation.

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.

