

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**
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| | | |
|---|--------------------|--------------------|
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|---|--------------------|--------------------|

| | | | | | | |
|----------------|-----------------|-------------|--------------------|------------------------|------------------|------------------------------|
| Product | N-Butyl Acetate | | | | Code | 9087 |
| CAS# | HSNO# | UN # | DG Class/es | Packing group # | Tracking? | Handlers Certificate? |
| 123-86-4 | HSR006409 | 1123 | 3 | II | No | No |

Recommended use: Laboratory Investigations

2. Hazards identification

2.1 GHS Classification

- Flammable Liquids (Category C)
- Acute toxicity, Inhalation (Category C)
- Skin irritation (Category A)
- Eye irritation (Category A)
- Aquatic toxicity (Acute or Chronic) (Category D)

2.2 GHS Label elements, including precautionary statements



Pictogram **Danger** Signal word **Danger**

Hazard statement(s)

- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H402 Harmful to aquatic life.

Precautionary statement(s)

Prevention

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- 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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P311 Call a POISON CENTER /doctor.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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 to an approved waste disposal plant.

2.3 Other hazards

Repeated exposure may cause skin dryness or cracking.

3. Composition/information on ingredients

Substance/Mixture:

Substance 3.1

Substances

Hazardous components

| Component | Classification | Concentration |
|-----------------|--|---------------|
| n-Butyl Acetate | 3.1 C; 6.1 C; 6.3 A; 6.4 A; 9.1 D; H226, H331, H315, H319, H402 | <=100% |

4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Drowsiness.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

No data available

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

| Component | CAS No | Value | Control parameters | Basis |
|-----------------|----------|----------|----------------------------------|--|
| n-Butyl Acetate | 123-86-4 | WES-TWA | 150 ppm 713 mg/m ³ | New Zealand. Workplace Exposure Standards for Atmospheric Contaminants |
| | | WES-STEL | 200 ppm 950 mg/m ³ | New Zealand. Workplace Exposure Standards for Atmospheric Contaminants |

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 30 min

Body Protection

Impervious clothing. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: liquid

Colour: colourless

b) Odour

Fruitlike

c) Odour

Threshold

No data available

d) pH

6.2 at ca.5 g/l at 20 °C

e) Melting point/freezing point

Melting point/range: -78 °C - lit.

f) Initial boiling point and boiling range

124 - 126 °C - lit.

g) Flash point

23 °C - closed cup

h) Evaporation rate

No data available

i) Flammability (solid, gas)

No data available

j) Upper/lower flammability or explosive limits

Upper explosion limit: 7.6 %(V)

Lower explosion limit: 1.7 %(V)

k) Vapour pressure

20 hPa at 25 °C

l) Vapour density

4.01 - (Air = 1.0)

m) Relative density

0.88 g/cm³ at 25 °C

n) Water solubility

5.3 g/l at 20 °C - OECD Test Guideline 105 - soluble

o) Partition coefficient: n-octanol/water

log Pow: 2.3 at 25 °C

p) Auto-ignition temperature

415 °C at 1,013 hPa

q) Decomposition temperature

No data available

r) Viscosity 0.83 mm²/s at 20 °C -

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents, strong reducing agents, strong bases

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - female - 10,760 mg/kg

LC50 Inhalation - Rat - male and female - 4 h - > 21 mg/l

LD50 Dermal - Rabbit - male and female - > 14,112 mg/kg

Skin corrosion/irritation

Skin - Rabbit - No skin irritation - 4 h - OECD Test Guideline 404

Serious eye damage/eye irritation

Eyes - Rabbit - No eye irritation - OECD Test Guideline 405

Respiratory or skin sensitisation

Germ cell mutagenicity

Genotoxicity in vitro - Ames test - *S. typhimurium* - with and without metabolic activation - negative

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Developmental Toxicity - Rat - Inhalation

No adverse effect has been observed in chronic toxicity tests.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Signs and Symptoms of Exposure

Drowsiness

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

Repeated dose toxicity - Rat - male and female - inhalation (vapour)

RTECS: AF7350000

12. Ecological information

12.1 Toxicity

Toxicity to fish

Flow-through test LC50 - Pimephales promelas (fathead minnow) - 18 mg/l - 96 h Method: OECD

Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

Static test EC50 - Daphnia (water flea) - 44 mg/l - 48 h

Toxicity to algae static test

EC50 - Desmodesmus subspicatus (green algae) - 674.7 mg/l - 72 h

12.2 Persistence and degradability

Biodegradability

Aerobic - Exposure time 28 d Result: 83 % - Readily biodegradable. Method: OECD Test Guideline 301D

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Harmful to aquatic life.

13. Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

| | | ADR/RID – European packaging certification | IMDG International Maritime Dangerous Goods Code | IATA – DGR International Air Travel Association – Dangerous Goods Regulations |
|-------------|---|---|---|--|
| 14.1 | UN Number | 1123 | 1123 | 1123 |
| 14.2 | UN Proper Shipping name | BUTYL ACETATES | BUTYL ACETATES | Butyl acetates |
| 14.3 | Transport Hazard Class | 3 | 3 | 3 |
| 14.4 | Packaging group | III | III | III |
| 14.5 | Environmental Hazards | No | No | No |
| 14.6 | Special precautions for user | No data available. | | |

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Approval Code: HSR006409

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group
Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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