SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label
: n-Butyl Acetate

Product Code(s)
: None assigned.

Recommended use of the chemical and restrictions on use
: Solvent
  Use pattern: Professional use only
  Recommended restrictions: None known.

Chemical family
: Pure substance

Name, address, and telephone number of the supplier:
Comet Chemical Company Ltd.
3463 Thomas Street
Innisfill, ON, Canada
L9S 3W4
705-436-5580

24 Hr. Emergency Tel #
: TERRRAPURE ENVIRONMENTAL : 800-567-7455

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical
Clear to slightly yellow liquid. Sweet odour.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable Liquids - Category 3
Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects
Specific Target Organ Toxicity, Single Exposure - Category 3 (respiratory)

Label elements

Hazard pictogram(s)

Signal Word

WARNING

Hazard statement(s)

Flammable liquid and vapor.
May cause drowsiness or dizziness.
May cause respiratory irritation.
SAFETY DATA SHEET

Precautionary statement(s)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing mist or vapours.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/eye protection/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
In case of fire: Use water fog, dry chemical, CO2 or `alcohol` foam for extinction.

Store locked up.
Store in a well-ventilated place. Keep cool.
Keep container tightly closed.

Dispose of contents/container in accordance with local regulation.

Other hazards

Other hazards May be sensitive to static discharge. Take measures to prevent the build up of electrostatic charge.

Other hazards which do not result in classification: Burning produces obnoxious and toxic fumes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. May cause skin and eye irritation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS #</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl acetate</td>
<td>1-Acetoxybutane, Butyl ethanoate</td>
<td>123-86-4</td>
<td>100.00</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Call a POISON CENTRE or doctor/physician if you feel unwell.

Skin contact: Immediately flush with plenty of water, while removing contaminated clothing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Eye contact: For eye contact, flush with running water for at least 15 minutes. If eye irritation persists: get medical advice/attention.
SAFETY DATA SHEET

Most important symptoms and effects, both acute and delayed

- May cause central nervous system effects. May cause headache, nausea, dizziness and other symptoms of central nervous system depression. May cause respiratory irritation. Symptoms may include sore throat, running nose and shortness of breath. Direct contact with eyes may cause temporary irritation. Direct skin contact may cause temporary redness. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Indication of any immediate medical attention and special treatment needed

- This product is a CNS depressant. Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
- Carbon dioxide (CO2); Dry chemical; Alcohol resistant foam; Water fog.

Unsuitable extinguishing media
- Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability
- Flammable liquid and vapour. Vapours may ignite explosively. Vapours are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material. Empty containers may contain hazardous residues.

Flammability classification (OSHA 29 CFR 1910.106)
- Flammable Liquids - Category 3

Hazardous combustion products
- Carbon dioxide and carbon monoxide.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters
- Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Special fire-fighting procedures
- Do not breathe fumes or vapours. Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

Environmental precautions
- Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Methods and material for containment and cleaning up
- Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools and equipment in the clean-up process. Avoid breathing mist or vapours. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities.
SAFETY DATA SHEET

Special spill response procedures:

- In case of a transportation accident, contact CHEMTREC at 1-800-424-9300 or International at 1-703-527-3887. EPA/CERCLA Reportable quantity (RQ): n-Butyl acetate (5000 lbs / 2270 kg)

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

- Wear protective gloves and eye/face protection. Use only in well-ventilated areas. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep away from flames and hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharges. Ground all equipment during handling.

Conditions for safe storage:

- Keep container tightly closed. Store in cool/well-ventilated place. Store locked up. Keep cool. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking. Empty containers may contain hazardous residues.

Incompatible materials:

- Strong oxidizing agents (e.g. hydrogen peroxide, nitric acid)

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>n-Butyl acetate</td>
<td>150 ppm</td>
<td>200 ppm</td>
</tr>
</tbody>
</table>

Exposure controls:

Ventilation and engineering measures:

- Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use explosion-proof equipment. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection:

- If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02. Advice should be sought from respiratory protection specialists.

Skin protection:

- Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye / face protection:

- Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles

Other protective equipment:

- Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations:

- Avoid breathing mist or vapor. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothing home. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

- Clear colourless liquid.
SAFETY DATA SHEET

Odour : Sweet odour.
Odour threshold : 0.1-7 ppm
pH : None.
Melting/Freezing point : -74°C (-101.2°F)
Initial boiling point and boiling range : 126°C (258°F)
Flash point : 29°C (84.2°F)
Flashpoint (Method) : Pensky Martens Closed Cup
Evaporation rate (BuAe = 1) : (butyl acetate = 1)
Flammability (solid, gas) : Not applicable.
Lower flammable limit (% by vol.) : 1.7%
Upper flammable limit (% by vol.) : 7.6%
Oxidizing properties : None known.
Explosive properties : Not explosive
Vapour pressure : 8-10 mmHg
Vapour density : 4
Relative density / Specific gravity : 0.883
Solubility in water : Soluble (68%)
Other solubility(ies) : Soluble in most organic solvents.
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution : 2.3
Auto-ignition temperature : 425°C / 797°F
Decomposition temperature : Not available.
Viscosity : 0.83 mm2/s
Volatiles (% by weight) : No available.
Volatile organic Compounds (VOC’s) : No information available.
Absolute pressure of container : Not applicable.
Flame projection length : Not applicable.
Other physical/chemical comments : None known or reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Hazardous polymerization does not occur.
Conditions to avoid : Open flames, sparks, high heat, direct sunlight, and close proximity to incompatible substances. Do not use in areas without adequate ventilation.
Incompatible materials : Strong oxidizing agents (e.g. hydrogen peroxide, nitric acid)
Hazardous decomposition products : None known, refer to hazardous combustion products in Section 5.
SAFETY DATA SHEET

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry:
- Inhalation: YES
- Skin & eye: YES
- Ingestion: YES
- Skin absorption: YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

**Signs and symptoms Inhalation**
- May cause central nervous system effects. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.
- May cause respiratory irritation. Symptoms may include sore throat, running nose and shortness of breath.

**Sign and symptoms Ingestion**
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

**Sign and symptoms skin**
- Direct skin contact may cause slight or mild, transient irritation.

**Sign and symptoms eyes**
- Direct eye contact may cause slight or mild, transient irritation.

Potential Chronic Health Effects

- Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.
- Not expected to be mutagenic in humans.
- No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
- Not expected to cause reproductive effects.
- Not expected to be a skin or respiratory sensitizer.
- This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Classification:
- Specific Target Organ Toxicity, Single Exposure - Category 3 (respiratory)
- Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects
- May cause drowsiness or dizziness. May cause respiratory irritation.
- Not classified as specific target organ toxicity-repeated exposure.

Medical conditions aggravated by overexposure:
- Pre-existing skin, eye or nervous system disorders.

Synergistic materials:
- No information available.

Toxicological data:
- See below for toxicological data on the substance.
n-Butyl Acetate
SDS Preparation Date (mm/dd/yyyy): 11/24/2015

SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>LC50(4hr) inh, rat</th>
<th>LD50 (Oral, rat)</th>
<th>LD50 (Rabbit, dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl acetate</td>
<td>&gt; 6867 ppm (vapour) 1.802 mg/L (aerosol)</td>
<td>10 700 mg/kg</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

Other important toxicological hazards: None reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic life. Do not allow material to contaminate ground water system. See the following tables for the substance's ecotoxicity data.

Ecotoxicity data:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Daphnia</th>
<th>Toxicity to Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LC50 / 96h</td>
<td>NOEC / 21 day</td>
<td>M Factor</td>
</tr>
<tr>
<td>n-Butyl acetate</td>
<td>123-86-4</td>
<td>18 mg/L (Fathead minnow)</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>n-Butyl acetate</td>
<td>123-86-4</td>
<td>675 mg/L/72hr (Green algae)</td>
<td>200 mg/L/72hr</td>
<td>None.</td>
</tr>
</tbody>
</table>

Persistence and degradability: Readily biodegradable

Bioaccumulation potential: No information available.

<table>
<thead>
<tr>
<th>Components</th>
<th>Partition coefficient n-octanol/ater (log Kow)</th>
<th>Bioconcentration factor (BCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl acetate (CAS 123-86-4)</td>
<td>2.3</td>
<td></td>
</tr>
</tbody>
</table>

Mobility in soil: The product itself has not been tested.

Other Adverse Environmental effects: None known.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

Methods of Disposal: Dispose in accordance with all applicable federal, state, provincial and local regulations.
SAFETY DATA SHEET

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>49CFR/DOT Additional information</td>
<td>UN1123</td>
<td>BUTYL ACETATES</td>
<td>3</td>
<td>III</td>
<td><img src="3" alt="Label" /></td>
</tr>
<tr>
<td>TDG Additional information</td>
<td>UN1123</td>
<td>BUTYL ACETATES</td>
<td>3</td>
<td>III</td>
<td><img src="3" alt="Label" /></td>
</tr>
<tr>
<td>IMDG Additional information</td>
<td>UN1123</td>
<td>BUTYL ACETATES</td>
<td>3</td>
<td>III</td>
<td><img src="3" alt="Label" /></td>
</tr>
<tr>
<td>ICAO/IATA Additional information</td>
<td>UN1123</td>
<td>Butyl acetates</td>
<td>3</td>
<td>III</td>
<td><img src="3" alt="Label" /></td>
</tr>
</tbody>
</table>

May be shipped as a Limited Quantity when transported in containers no larger than 5 L (1.3 gallons); in packages not exceeding 30 kg (66 pounds) gross mass.

Special precautions for user

: Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame. - No smoking.

Environmental hazards

: See ECOLOGICAL INFORMATION, Section 12.

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

: This information is not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:
SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>TSCA Inventory</th>
<th>CERCLA Reportable Quantity(RQ) (40 CFR 117.302):</th>
<th>SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:</th>
<th>SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical</th>
<th>Toxic Chemical</th>
<th>de minimus Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl acetate</td>
<td>123-86-4</td>
<td>Yes</td>
<td>5000 lb/2270 kg</td>
<td>None</td>
<td>No</td>
<td>N/A</td>
<td>Yes</td>
</tr>
</tbody>
</table>

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>California Proposition 65</th>
<th>State &quot;Right to Know&quot; Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Listed</td>
<td>Type of Toxicity</td>
</tr>
<tr>
<td>n-Butyl acetate</td>
<td>123-86-4</td>
<td>No</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Canadian Information:

Canadian Environmental Protection Act (CEPA): All ingredients are present on the DSL.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

International Information:

Components listed below are present on the following International Inventory list:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>European EINECs</th>
<th>Australia AICS</th>
<th>Philippines PICCS</th>
<th>Japan ENCS</th>
<th>Korea KEC/KKCL</th>
<th>China IECSC</th>
<th>NewZealand IOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Butyl acetate</td>
<td>123-86-4</td>
<td>204-658-1</td>
<td>Present</td>
<td>Present</td>
<td>(2)-735; (2)-731</td>
<td>KE-04179</td>
<td>Present</td>
<td>HSR001091</td>
</tr>
</tbody>
</table>

SECTION 16. OTHER INFORMATION

Legend:
- ACGIH: American Conference of Governmental Industrial Hygienists
- AICS: Australian Inventory of Chemical Substances
- ATE: Acute Toxicity Estimate
- CA: California
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- CSA: Canadian Standards Association
- DOT: Department of Transportation
- ECHA: European Chemicals Agency
- ECOTOX: U.S. EPA Ecotoxicology Database
- EINECS: European Inventory of Existing Commercial chemical Substances
- ENCS: Existing and New Chemical Substances
- EPA: Environmental Protection Agency
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
SAFETY DATA SHEET

IBC: Intermediate Bulk Container
IECSC: Inventory of Existing Chemical Substances
IMDG: International Maritime Dangerous Goods
IOC: Inventory of Chemicals
IUCLID: International Uniform Chemical Information Database
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
SDS: Safety Data Sheet / Material Safety Data Sheet
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References:
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2015
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2015 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists
6. California Proposition 65 List

Preparation Date (mm/dd/yyyy):
11/24/2015

Other special considerations for handling:
Provide adequate information, instruction and training for operators.
SAFETY DATA SHEET

Prepared for:
Comet Chemical Company Ltd.
3463 Thomas Street
Innisfill, ON L9S 3W4
Information (M-F 8:00-5:00): 705-436-5580
www.cometchemical.com

Prepared by:
ICC The Compliance Center Inc.
Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada)
http://www.thecompliancecenter.com

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END OF DOCUMENT