

SECTION 1: Identification of the substance/mixture and of the company/undertaking

NAME OF PREPARATION OR SUBSTANCE:	Reed Diffuser Base
SUPPLIER NAME:	YellowBee Packaging and Supplies Inc.
SUPPLIER ADDRESS:	#106 2880 107 Ave SE Calgary AB T2Z3R7 Canada
TELEPHONE NUMBER:	(587) 352 3929
RECOMMENDED USE:	Domestic and Industrial

SECTION 2: Hazards identification

Although WHMIS has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects

2.1 Classification of the substance or mixture

Hazardous Products Regulations (WHMIS 2015)

Flammable liquids, Category 4
Eye irritation, Category 2A

H227: Combustible liquid.
H319: Causes serious eye irritation.

2.2 Label elements

Hazardous Products Regulations (WHMIS 2015)

Pictogram



Signal Word

- Warning

Hazard Statements

- | | |
|--------|--------------------------------|
| - H227 | Combustible liquid. |
| - H319 | Causes serious eye irritation. |

Precautionary Statements

Prevention

- | | |
|--------|--|
| - P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| - P264 | Wash skin thoroughly after handling. |
| - P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |

Response

- | | |
|----------------------|--|
| - P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| - P337 + P313 | If eye irritation persists: Get medical advice/ attention. |
| - P370 + P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. |

Storage

- | | |
|--------|-----------------------------------|
| - P403 | Store in a well-ventilated place. |
|--------|-----------------------------------|

Disposal

- | | |
|--------|---|
| - P501 | Dispose of contents/ container to an approved waste disposal plant. |
|--------|---|

2.3 Other hazards which do not result in classification

None identified

SECTION 3: Composition/information on ingredients**3.1 Substance****WHMIS Hazardous Ingredients and Impurities**

Chemical name	Identification number CAS-No.	Concentration [% wt/wt or V/V]
Isopropylidene glycol	100-79-8	>= 99 - <= 100

3.2 Mixture

Not applicable, this product is a substance.

SECTION 4: First aid measures**4.1 Description of first-aid measures****General advice**

- First responder needs to protect himself.
- Show this material safety data sheet to the doctor in attendance.
- Place affected apparel in a sealed bag for subsequent decontamination.
- When symptoms persist or in all cases of doubt seek medical advice.

In case of inhalation

- Quickly move the person away from the contaminated area. Make the affected person rest.
- Obtain medical attention.
- Show this sheet to the doctor.
- Be prepared to provide first aid or medical support if necessary.

In case of skin contact

- Wash off immediately with plenty of water for at least 15 minutes.
- Use appropriate protective equipment when treating a contaminated person.
- In case of inflammation (redness, irritation, ...) obtain medical attention.
- Show this sheet to the doctor.
- Be prepared to provide first aid or medical support if necessary.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Keep eye wide open while rinsing.
- Show this sheet to the doctor.
- Always obtain medical advice, even if there are no symptoms.
- Be prepared to provide first aid or medical support if necessary.

In case of ingestion

- Do NOT induce vomiting.
- Obtain medical attention.
- Show this sheet to the doctor.
- Do not give anything to drink.
- Be prepared to provide first aid or medical support if necessary.

4.2 Most important symptoms and effects, both acute and delayed**Effects**

- Chronic exposure may cause dermatitis.
- May cause irreversible eye damage.
- Loss of the eye

Symptoms

- Redness
- Swelling of tissue
- Causes skin burns.
- Lachrymation
- Conjunctivitis
- Causes eye burns.

4.3 Indication of any immediate medical attention and special treatment needed**Notes to physician**

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Burns must be treated by a physician.
- Contact a poison control center.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

- Extinguishing media - small fires
- Water spray
- Multipurpose powders
- Carbon dioxide (CO₂)
- Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF)
- Extinguishing media - large fires
- Water spray
- Multipurpose powders
- Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF)
- Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

- Do not use a solid water stream as it may scatter and spread fire.
- High volume water jet

5.2 Special hazards arising from the substance or mixture**Specific hazards during fire fighting**

- Combustible liquid.
- The pressure in sealed containers can increase under the influence of heat.
- Hazardous decomposition products formed under fire conditions.
- High concentrations of toxic or harmful products may remain in the residual liquid once the fire has been extinguished.
- Under fire conditions:
- Will burn
- On combustion, toxic gases are released.

Hazardous combustion products:

- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3 Advice for firefighters**Special protective equipment for fire-fighters**

- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- In the event of fire, wear self-contained breathing apparatus.
- For further information refer to section 8 "Exposure controls / personal protection."

Specific fire fighting methods

- Stay upwind.
- Fight fire with normal precautions from a reasonable distance.
- Do not use a solid water stream as it may scatter and spread fire.
- Cool down the containers / equipment exposed to heat with a water spray. Ensure that there is NO direct contact between the water and the product.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Cool containers/tanks with water spray.
- Do not use a solid water stream as it may scatter and spread fire.

Further information

- Evacuate personnel to safe areas.
- Intervention only by capable personnel who are trained and aware of the hazards of the product.
- Never approach containers which have been exposed to fire, without cooling them sufficiently.
- 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.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Avoid inhalation, ingestion and contact with skin and eyes.
- Wear chemical resistant personal protective equipment
- Wear suitable gloves.
- Wear suitable protective clothing.
- Wear as appropriate:
 - Face-shield
 - Tightly fitting safety goggles
- In the case of dust or aerosol formation use respirator with an approved filter.
- In the case of vapor formation use a respirator with an approved filter.
- Eliminate all ignition sources if safe to do so.
- Stop leak if safe to do so.
- For further information refer to section 8 "Exposure controls / personal protection."

6.2 Environmental precautions

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Prevent further leakage or spillage if safe to do so.
- Contain the spilled material by diking.
- The product should not be allowed to enter drains, water courses or the soil.

6.3 Methods and materials for containment and cleaning up

- No sparking tools should be used.
- Stop leak if safe to do so.
- Dam up with sand or inert earth (do not use combustible materials).
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
- Shovel or sweep up.
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.
- Wash nonrecoverable remainder with large amounts of water.
- Clean contaminated surface thoroughly.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.
- Dispose of in accordance with local regulations.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Handle in accordance with good industrial hygiene and safety practice.
- Wear personal protective equipment.
- Wear suitable protective clothing.
- Avoid inhalation, ingestion and contact with skin and eyes.
- Avoid splashes.
- Avoid formation of aerosol.
- For personal protection see section 8.
- Containers must be bonded and grounded when pouring or transferring material.
- This material contains a flammable or combustible liquid and vapor.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.
- The user is responsible for monitoring the working environment in accordance with local laws and regulations.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Keep locked up or in an area accessible only to qualified or authorized persons.
- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer
- Observe the general rules of industrial fire protection.
- Areas containing this material should have fire safe practices and electrical equipment in accordance with applicable regulations and/or guidelines. Standards are primarily based on the material's flashpoint, but may also take into account properties such as miscibility with water or toxicity. All local and national regulations should be followed. In the Americas, National Fire Protection Association (NFPA) 30: Flammable and Combustible Liquids Code, is a widely used standard. NFPA 30 establishes storage conditions for the following classes of materials: Class I Flammable Liquids, Flashpoint <37.8 °C. Class II Combustible Liquids, 37.8 °C < Flashpoint <60

°C. Class IIIa Combustible Liquids, 60 °C < Flashpoint < 93 °C. Class IIIb Combustible Liquids, Flashpoint > 93 °C.

- Keep away from sources of ignition - No smoking.

Packaging material**Suitable material**

- Unlined steel
- Plastic container of HDPE

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

- Contains no substances with occupational exposure limit values.

8.2 Exposure controls**Control measures****Engineering measures**

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :
- Effective exhaust ventilation system
- Ensure adequate ventilation.
- Extract at emission point.
- Ensure that extracted air cannot be returned to the workplace through the ventilation system.
- Avoid splashes.
- Avoid formation of aerosol.

Individual protection measures**Respiratory protection**

- This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.
- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
- Use a respirator with an approved filter if a risk assessment indicates this is necessary.
- Keep in a well-ventilated place.

Hand protection

- Where there is a risk of contact with hands, use appropriate gloves
- Gloves must be inspected prior to use.
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Impervious gloves

Eye protection

- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:
 - Tightly fitting safety goggles
 - Face-shield
- Chemical resistant goggles must be worn.
- Tightly fitting safety goggles

Skin and body protection

- Full protective suit
- Footwear protecting against chemicals
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Impervious clothing
- Change working clothes after each work-shift.
- Contaminated work clothing should not be allowed out of the workplace.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
 - 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
 - 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
 - 3) Wash exposed skin promptly to remove accidental splashes or contact with material.
- The user is responsible for monitoring the working environment in accordance with local laws and regulations.

Protective measures

- Emergency equipment immediately accessible, with instructions for use.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.
- The protective equipment must be selected in accordance with current local regulations and in cooperation with the supplier of the protective equipment.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

<u>Physical state</u>	liquid
<u>Color</u>	colorless
<u>Odor</u>	slight
<u>Odor Threshold</u>	No data available
<u>Melting point/freezing point</u>	<u>Freezing point:</u> -146 °F (-99 °C)
<u>Initial boiling point and boiling range</u>	<u>Boiling point/boiling range:</u> 361 - 376 °F (183 - 191 °C) (760 mmHg (1,013.25 hPa))
<u>Flammability (solid, gas)</u>	No data available

<u>Flammability (liquids)</u>	No data available
<u>Flammability / Explosive limit</u>	No data available
<u>Flash point</u>	196 °F (91 °C) closed cup 212 °F (100 °C) open cup Flammability class: Combustible
<u>Autoignition temperature</u>	No data available
<u>Decomposition temperature</u>	No data available
<u>pH</u>	Not applicable
<u>Viscosity</u>	<u>Viscosity, dynamic</u> : 11 mPa.s (68 °F (20 °C))
<u>Solubility</u>	<u>Water solubility</u> : (68 °F (20 °C))completely soluble <u>Solubility in other solvents</u> : Alcohol: miscible Esters: miscible Ether: miscible Aromatic hydrocarbons: miscible petroleum ether: miscible petrol: miscible
<u>Partition coefficient: n-octanol/water</u>	No data available
<u>Vapor pressure</u>	0.04 mmHg (0.05 hPa) (68 °F (20 °C))
<u>Density</u>	1.0670 g/cm3 (68 °F (20 °C))
<u>Relative density</u>	1.069 (68 °F (20 °C))
<u>Relative vapor density</u>	2.6
<u>Particle characteristics</u>	No data available
<u>Evaporation rate (Butylacetate = 1)</u>	0.027
9.2 Other information	
<u>Self-ignition</u>	734 °F (390 °C) (759.81 mmHg (1,013 hPa)) Method: EU Test Guideline A15
<u>Surface tension</u>	33.5 mN/m (68 °F (20 °C))
<u>Molecular weight</u>	132.16 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

- Stable at normal ambient temperature and pressure.

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.
- Hazardous polymerization does not occur.

10.4 Conditions to avoid

- Keep away from open flames, hot surfaces and sources of ignition.
- Avoid high temperatures.
- Avoid excessive heat for prolonged periods of time.

10.5 Incompatible materials

- Strong oxidizing agents
- Strong acids
- On contact with acid, releases:
- Acetone

10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (pyrolysis), releases:
- Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

Isopropylidene glycol

LD50 : 7,000 mg/kg - Rat

Not classified as hazardous for acute oral toxicity according to GHS.

Published data

Acute inhalation toxicity

Isopropylidene glycol

LC50 - 4 h (aerosol) : > 5.11 mg/l - Rat , male and female

Method: OECD Test Guideline 403

Not classified as hazardous for acute inhalation toxicity according to GHS.

No mortality observed at this concentration.

Unpublished reports

Acute dermal toxicity

Isopropylidene glycol

LD50 : 2,000 mg/kg - Rat , male and female

Method: OECD Test Guideline 402

Not classified as hazardous for acute dermal toxicity according to GHS.

Semioclusive

No mortality observed at this dose.

Unpublished reports

Acute toxicity (other routes of administration)

No data available

Skin corrosion/irritation

Isopropylidene glycol

Rabbit
No skin irritation
Method: OECD Test Guideline 404
Semiocclusive
Unpublished reports

Serious eye damage/eye irritation

Isopropylidene glycol

Rabbit
Causes serious eye irritation.
Method: OECD Test Guideline 405
Unpublished reports

Respiratory or skin sensitization

Isopropylidene glycol

Maximization Test - Guinea pig
Responding animals in GPMT < 30%
Method: OECD Test Guideline 406
Unpublished reports

Mutagenicity**Genotoxicity in vitro**

Isopropylidene glycol

Ames test
with and without metabolic activation

negative
Method: OECD Test Guideline 471
Unpublished reports

Gene mutation assays in mammalian cells.
Strain: mouse lymphoma cells
with and without metabolic activation

negative
Method: OECD Test Guideline 490
Unpublished reports

Genotoxicity in vivo

Isopropylidene glycol

In vivo micronucleus test - Mouse
male
Intraperitoneal route
Method: OECD Test Guideline 474

negative
Unpublished reports

Carcinogenicity

No data available

Toxicity for reproduction and development**Toxicity to reproduction / fertility**

Isopropylidene glycol

Reproduction / developmental toxicity screening test - Rat, male and female, Oral

General Toxicity Parent NOAEL: 1,000 mg/kg bw/day
Fertility NOEL: 1,000 mg/kg bw/day

General Toxicity F1 NOEL: 1,000 mg/kg bw/day

OECD Test Guideline 422

Gavage, Highest dose tested, no impairment of fertility has been observed,
Unpublished reports

One-Generation Reproduction Toxicity Study - Rat, male and female, Oral

General Toxicity Parent NOAEL: 1,000 mg/kg bw/day

Fertility NOAEL Parent: 1,000 mg/kg bw/day

General Toxicity F1 NOAEL: 1,000 mg/kg bw/day

Fertility NOAEL F1: 1,000 mg/kg bw/day

Developmental Toxicity NOAEL F1: 1,000 mg/kg bw/day

General Toxicity F2 NOAEL: 1,000 mg/kg bw/day

Developmental Toxicity NOAEL F2: 1,000 mg/kg bw/day

OECD Test Guideline 443

Gavage, Highest dose tested, no impairment of fertility has been observed,
Unpublished internal reports

Developmental Toxicity/Teratogenicity

Isopropylidene glycol

Pre-natal - Rat, male and female, Oral

General Toxicity Maternal NOAEL: 1,000 mg/kg bw/day

Developmental Toxicity NOAEL F1: 1,000 mg/kg bw/day

Method: OECD Test Guideline 414

Gavage, Highest dose tested, no teratogenic effects have been observed,
Unpublished reports

Pre-natal - Rabbit, female, Oral

General Toxicity Maternal NOAEL: 300 mg/kg bw/day

Developmental Toxicity NOAEL F1: 1,000 mg/kg bw/day

Method: OECD Test Guideline 414

Gavage, Highest dose tested, no teratogenic effects have been observed,
Unpublished internal reports

STOT**STOT-single exposure**

Isopropylidene glycol

The substance or mixture is not classified as specific target organ toxicant, single
exposure according to GHS criteria.
internal evaluation

STOT-repeated exposure

Isopropylidene glycol

The substance or mixture is not classified as specific target organ toxicant,
repeated exposure according to GHS criteria.
internal evaluation

Isopropylidene glycol

Oral 5 Weeks - Rat , male and female

NOAEL: 1000 mg/kg

Method: OECD Test Guideline 422

Gavage

Highest dose tested

No systemic toxicity observed.

Unpublished reports

Inhalation (aerosol) 90-day - Rat , male and female
NOAEC: > 5 mg/l
Method: OECD Test Guideline 413
Highest dose tested
No significant adverse effects were reported
Unpublished reports

Experience with human exposure

No data available

Aspiration toxicity

No data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**

Isopropylidene glycol

LC50 - 96 h : 16,700 mg/l - Pimephales promelas (fathead minnow)
flow-through test
Analytical monitoring: yes

Method: according to a standardized method
Not harmful to fish (LC/LL50 > 100 mg/L)
Published data

Acute toxicity to daphnia and other aquatic invertebrates

Isopropylidene glycol

EC50 - 48 h : > 96 mg/l - Daphnia magna (Water flea)
static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
Not harmful to aquatic invertebrates. (EC/EL50 > 100 mg/L)
Highest concentration tested
Unpublished reports

EC50 - 48 h : 4,600 mg/l - Daphnia magna (Water flea)
static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
Not harmful to aquatic invertebrates. (EC/EL50 > 100 mg/L)
Unpublished reports

Toxicity to aquatic plants

Isopropylidene glycol

ErC50 - 72 h : > 92 mg/l - Pseudokirchneriella subcapitata (green algae)
static test
Analytical monitoring: yes
Endpoint: Growth rate
Method: OECD Test Guideline 201
Not harmful to algae (EC/EL50 > 100 mg/L)
Highest concentration tested
Unpublished reports

NOEC - 72 h : 92 mg/l - Pseudokirchneriella subcapitata (green algae)
static test
Analytical monitoring: yes
Endpoint: Growth rate
Method: OECD Test Guideline 201

No adverse chronic effect observed up to and including the threshold of 1 mg / L.
Highest concentration tested
Unpublished reports

ErC50 - 72 h : 15,000 mg/l - Raphidocelis subcapitata (freshwater green alga)
static test
Endpoint: Growth rate
Method: OECD Test Guideline 201
Not harmful to algae (EC/EL50 > 100 mg/L)
Unpublished reports

NOEC - 72 h : 940 mg/l - Raphidocelis subcapitata (freshwater green alga)
static test
Endpoint: Growth rate
Method: OECD Test Guideline 201
No adverse chronic effect observed up to and including the threshold of 1 mg / L.
Unpublished reports

Toxicity to microorganisms

Isopropylidene glycol

- 3 h : - activated sludge
static test
Endpoint: Respiration inhibition

EC50 : > 1,000 mg/l

EC10 : > 1,000 mg/l

Analytical monitoring: no
Method: OECD Test Guideline 209
Unpublished reports

Chronic toxicity to fish

No data available

Chronic toxicity to daphnia and other aquatic invertebrates

Isopropylidene glycol

NOEC: 10 mg/l - 21 Days - Daphnia magna (Water flea)
semi-static test
Analytical monitoring: yes
Endpoint: Reproduction
Method: OECD Test Guideline 211
No adverse chronic effect observed up to and including the threshold of 1 mg / L.
Unpublished reports

Terrestrial Compartment

Toxicity to soil dwelling organisms

Isopropylidene glycol

NOEC: 250 mg/kg - 56 Days - Eisenia fetida (earthworms)
Endpoint: Reproduction
Method: OECD Test Guideline 222
Unpublished reports

EC10: 1,250 mg/kg - 28 Days - soil micro-organisms
Endpoint: Nitrogen transformation
Method: OECD Test Guideline 216

Unpublished reports

12.2 Persistence and degradability

Abiotic degradation

Stability in water

Isopropylidene glycol

DT50:
Hydrolysis
pH: 4.0Temperature of hydrolysis: 15 °C
Hydrolysis time: 6.59 DaysTemperature of hydrolysis: 20 °C
Hydrolysis time: 3.51 DaysTemperature of hydrolysis: 25 °C
Hydrolysis time: 0.959 DaysMethod: OECD Test Guideline 111
Unpublished reports**Physical- and photo-chemical
elimination**

No data available

Biodegradation**Biodegradability**

Isopropylidene glycol

Ready biodegradability study:
Method: OECD Test Guideline 301 D
4 % - 28 DaysThe substance does not fulfill the criteria for ready biodegradability and ultimate aerobic biodegradability
Theoretical oxygen demand
Inoculum: activated sludge
Unpublished reportsInherent biodegradability study
Method: OECD Test Guideline 302 B
25 % - 28 Days
The substance fulfills the criteria for inherent primary biodegradability
Dissolved organic carbon (DOC)
Inoculum: activated sludge
Unpublished internal reports**Degradability assessment**

Isopropylidene glycol

The product is not considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water**

Isopropylidene glycol

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Bioconcentration factor (BCF)

No data available

12.4 Mobility in soil**Adsorption potential (Koc)**

Isopropylidene glycol

Adsorption/Soil

Log Koc: < 1.25

Method: OECD Test Guideline 121

Highly mobile in soils

Unpublished reports

Known distribution to environmental compartments

No data available

12.5 Results of PBT and vPvB assessment

Isopropylidene glycol

This substance is not considered to be persistent, bioaccumulating, and toxic (PBT).

This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects**Ecotoxicity assessment****Short-term (acute) aquatic hazard**

Isopropylidene glycol

Not harmful to aquatic life (LC/LL50, EC/EL50 > 100 mg/L)

Long-term (chronic) aquatic hazard

Isopropylidene glycol

No adverse chronic effect observed up to and including the threshold of 1 mg / L.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product Disposal*****Prohibition***

- Do not discharge directly into the environment.
- Dispose of in accordance with local regulations.
- Waste Management options should first consider possible re-use or recycling opportunities. Some provinces have active "Waste Exchange" networks for re-use and recycling of wastes. Contact your local waste management companies to explore available options. All waste management activities must obey local, provincial and federal regulations. Possible disposal methods include the following:
- Can be incinerated, when in compliance with local regulations.
- The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

Advice on cleaning and disposal of packaging***Prohibition***

- Do NOT dispose of untreated packaging with industrial waste.
- Do not dispose of with domestic refuse.
- Empty remaining contents.

- Clean using steam.
- Monitor the residual vapors.
- Dispose of rinse water in accordance with local and national regulations.
- Containers that cannot be cleaned must be treated as waste.
- Dispose of contents/ container to an approved waste disposal plant.
- Dispose of in accordance with local regulations.
- Where possible recycling is preferred to disposal or incineration.
- The recycled material must be completely dry and free of pollutants.

SECTION 14: Transport information**TDG**

not regulated

49 CFR

14.1 UN number	NA 1993
14.2 Proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (Dioxolane derivative compounds)
14.3 Transport hazard class	Combustible liquid.
Label(s)	NONE
14.4 Packing group	III
Packing group	128
ERG No	
14.5 Environmental hazards	NO
Marine pollutant	
14.6 Special precautions for user	

Remarks : The combustible liquid classification only applies when shipped in package sizes >119 gallons.

NOM

not regulated

IMDG

not regulated

IATA

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information**15.1 Notification status**

Inventory Information	Status
United States TSCA Inventory	- All substances listed as active on the TSCA inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australian Inventory of Industrial Chemicals (AIIC)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand.
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.
Korea. Act on Registration and Evaluation of Chemicals	- When purchased from a legal entity based in Korea, this product is compliant with "Act on Registration and Evaluation of Chemicals" (AREC or K-REACH, Article 10) as all its components are either excluded, exempt, and/or (pre)registered. When purchased from a legal entity outside of Korea, please contact your local representative for additional information.

15.2 National Regulations**Canada. CEPA 1999 Significant New Activity (SNAc) List:**

- No substances are subject to a Significant New Activity Notification.

SECTION 16: Other information**Revision Date:**

12/06/2023

Further information

- Distribute new edition to clients
- Update
- See section 2

Key or legend to abbreviations and acronyms used in the safety data sheet

- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology Program
- IARC: International Agency for Research on Cancer
- NIOSH: National Institute for Occupational Safety and Health
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

The information provided above is intended only as a guide to the appropriate precautionary handling of the material by properly trained personnel using this product. It is the responsibility of the customer and user to ensure it has in place provisions for the safe and proper handling of the material. Although YellowBee Packaging and Supplies Inc. believes the above information to be accurate based on the information available to YellowBee, it is the responsibility of the customer and user of the material to perform its own investigation and due diligence prior to use to verify that the product purchased from YellowBee meets their quality requirements and is appropriate for the use to which the product is to be put. Use and purchase of this material is subject to YellowBee Packaging and Supplies Inc. standard terms and conditions, which supersede any conflicting terms contained on Buyer's purchase order or any document or instrument supplied by Buyer.

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