

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Trade Name/Designation	Rynex-3 Dry Cleaning Solvent
Substance Name	Dipropylene Glycol t-Butyl Ether
EC No	422-300-4
REACH Registration No	No registration number is given yet for this phase-in substance since the transition period for its registration according to Article 23 of REACH has not yet expired.
CAS No	132739-31-2
Chemical Family	Glycol Ether

1.2 Recommended Use and Restrictions on Use

1.2.1	Uses	Dry Cleaning Solvent
1.2.2	Uses advised against	N/A

1.3 Supplier Details

1.3.1	Manufacturer/Supplier Name and Address	Rynex Technologies LLC Equinox Chemicals, LLC 1909 West Oakridge Dr Albany, GA. 31707 USA www.rynex.com info@rynex.com
1.3.2	Customer Service Phone	+1 229-317-7850

1.4 Emergency Phone Number

24 hours per day/7 days per week (English only)	CHEMTEL (800) 255-3924
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SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification

2.1.1	Classification According to Regulation (EC) No 1272/2008 (CLP/GHS)	Serious Eye Damage/Irritation Category 2A
2.1.2	Classification According to Directive 67/548/EEC	Xi; R36
2.1.3	Additional Information	Full text of text of R-phrases: see Section 16
2.1.3.1	OSHA Classification	This product is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1919.1200)

2.2 Label Elements



2.2.1	GHS Symbols:	
2.2.2	Signal Word	Warning
2.2.3	Hazard Statement	H319: Causes serious eye irritant

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2.2.4 Precautionary Phrases

Protection: **P264:** Wash thoroughly after handling
P280: Wear eye 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.

2.2.4.1 Supplemental Hazard Information (EU) Not applicable

2.2.5 NFPA Ratings

Health Hazard: 1
 Fire: 1
 Reactivity: 0

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Product identifier type in accordance with Article 18(2) of Regulation (EC) No 1272/2008	Identifier Number (CAS No)	Weight % content (or range)	EC Number
Dipropylene Glycol t-Butyl Ether	132739-31-2	90-95	422-300-4
Non Classified Impurity	Not applicable	5-8	Not applicable
Dipropylene Glycol	25265-71-8	<3	246-770-3

SECTION 4 FIRST AID MEASURES
4.1 Description of First Aid Measures:

Following Inhalation: Move to fresh air.
 Following Skin Contact: Wash off immediately with soap and plenty of water.
 Following Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Following Ingestion: Rinse mouth. Do not induce vomiting. If you feel unwell, consult your local Poison Control Center or physician.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Following Inhalation: Over exposure to vapors or mists may cause coughing and irritation to the respiratory tract
 Following Skin Contact: Prolonged or repeated skin contact may cause irritation.
 Following Eye Contact: Causes severe eye irritation. Symptoms included redness and tearing of eyes.
 Following Ingestion: May cause irritation to mucous membranes and gastrointestinal upset.

SECTION 5 FIRE FIGHTING MEASURES
5.1 Extinguishing Media:

Suitable Extinguishing Media Use powder, alcohol foam, carbon dioxide, or water spray.
 Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

- 5.2 **Special Hazards Arising from the Substance:** In case of fire, carbon monoxide, carbon dioxide, and hydrocarbons can be formed.
- 5.3 **Advice for Firefighters** In the event of fire, wear self-contained breathing apparatus and full protective gear.
- 5.4 **Additional Information:** Product will burn in a fire. Keep container tightly closed when not in use. Store away from heat, sparks or other sources of ignition.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal Precautions, Protective Equipment, and Emergency Procedures:** Wear eye protection. Remove sources of ignition. Dike large spills with absorbent material. Spill material may cause surfaces to become slippery. Use caution to prevent falls. Clean up spills immediately. Do not walk through spilled material.
- 6.2 **Environmental Precautions:** As with all industrial chemicals, use of good chemical hygiene and environmental stewardship practices is recommended.
- 6.3 **Methods and Material for Containment and Cleaning Up:** Absorb spilled material and place in appropriate container for disposal.
- 6.4 **References to other Sections:** Refer to Section 8, Exposure Control/Personal Protection.

SECTION 7 HANDLING AND STORAGE

- 7.1 **Precautions for Safe Handling:**
 - 7.1.1 **Protective Measures to Prevent Fire:** Product will burn in a fire. Keep container tightly closed when not in use. Store away from heat, sparks, and other sources of ignition.
 - 7.1.2 **Advice on General Occupational Hygiene:** Use with adequate ventilation. Avoid contact with eyes. Wear eye protection. Avoid prolonged or repeated contact with skin. Use of proper chemical hygiene practices in the workplace is recommended. Keep away from food and foodstuffs. Instantly remove soiled garments. Wash clothing before reuse. Wash hands during breaks and at the end of work.
- 7.2 **Conditions for Safe Storage, Including Incompatibilities:** Keep container tightly closed. Store away from sources of ignition. Store out of direct sunlight.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Control Parameters**
 - 8.1.1 **Substance:** Dipropylene Glycol t-Butyl Ether CAS: 132739-31-2
 - Australia None Allocated
 - Canada None Allocated
 - European Union None Allocated
 - United States (OSHA) Not Established
 - United States (ACGIH) Not Established
 - 8.1.2 **Substance:** Dipropylene Glycol CAS: 25265-71-8
 - Australia None Allocated
 - Canada None Allocated

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Germany (AGS)	Limit Value (Eight Hours): 67 mg/m ³ inhalable aerosol	Limit Value (15 minutes average value): 536 mg/m ³ (inhalable aerosol)
Germany (DFG)	Limit Value (Eight Hours): 200 mg/m ³ inhalable aerosol	Limit Value (15 minutes average value): 400 mg/m ³ (inhalable aerosol)
Switzerland	Limit Value (Eight Hours): 200 mg/m ³ inhalable aerosol	Limit Value (15 minutes average value): 400 mg/m ³ (inhalable aerosol)
United States (OSHA)	Not Established	
United States (ACGIH)	Not Established	

8.2 Exposure Controls

8.2.1 Appropriate Engineering Controls Good general ventilation should be sufficient to control airborne levels. A system of local and/or general exhaust is recommended where employee exposures are at or above Occupational Exposure Limits (OEL).

8.2.2 Individual Protection Measures

Eye/Face Protection:	Where splashing is possible, wear appropriate protective eyeglasses or chemical safety goggles as described by European Standard EN166 or American National Standards Institute Z87.1
Skin Protection	Wear appropriate protective clothing such as long sleeves and gloves to minimize contact with skin.
Respiratory Protection	Use breathing protection with high concentrations. A respiratory program that meets requirements of EN 149 or OSHA 1910.134 must be followed whenever workplace conditions warrant a respirator's use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on Basic Physical and Chemical Properties

(a) Appearance	Clear liquid
(b) Odor	Slight ether-like
(c) Odor Threshold	Not determined
(d) pH:	Neutral
(e) Melting Point	<-25°C (<-13°F)
(f) Initial Boiling Point	215°C (419 °F)
(g) Flash Point	>93.3°C (PMCC) (> 200°F)
(h) Evaporation Rate	1.5 (ButAC = 100)
(i) Flammability	Substance is not flammable
(j) Upper/Lower Explosion Limits	UEL: 6.7 / LEL: 1.7
(k) Vapor Pressure	5.3 Pa @ 20°C
(l) Vapor Density	0.04 (mm Hg @ 20°C)
(m) Relative Density	Specific Gravity = 0.90977
(n) Water Solubility	111.0 g/L @ 20°C
(o) Partition Coefficient: n-octanol/water	log P _{ow} = 1.68 @ 20°C
(p) Auto-Ignition Temperature	>269°C (> 516°F)
(q) Decomposition Temperature	Not Determined

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- (r) Viscosity 4.9 (centistokes) @ 25 deg C
- (s) Explosive Properties no visible or audible reaction was recorded in the mechanical sensitivity (shock) test; friction test not applicable, as notified chemical is a liquid
- (t) Oxidizing Properties None

SECTION 10 STABILITY AND REACTIVITY

- 10.1 **Reactivity**
Reactions with air and water: Not expected to occur
- 10.2 **Chemical Stability** This material is stable when properly handled and stored.
- 10.3 **Possibility of Hazardous Reactions** Not expected to occur
- 10.4 **Conditions to Avoid** Extended contact with air, oxygen, heat, sparks, open flame, other ignition sources, and oxidizing conditions.
- 10.5 **Incompatible Materials** Avoid contact with strong acids and strong oxidizing agents. Avoid prolonged contact with air or oxygen. Keep container tightly closed.
- 10.6 **Hazardous Decomposition Products** Carbon monoxide and other toxic vapors.

SECTION 11 TOXICOLOGICAL PROPERTIES

- 11.1 **Information on Toxicological Effects**
- (a) Acute Toxicity

ORAL LD₅₀	DERMAL LD₅₀	Inhalation LC₅₀
2600 mg/kg (rat)	>2000 mg/kg (rabbit)	
- (b) Skin Corrosion/Irritation Slight irritant (rabbit)
- (c) Serious Eye Damage/Irritation Mild to moderate irritant (rabbit)
- (d) Respiratory or Skin Sensitization There is limited evidence to suggest that primary composition component may cause skin sensitization.
- (e) Germ Cell Mutagenicity Negative (*Salmonella typhimurium* TA 1535, TA 1537, TA 98, TA 100)
- (f) Carcinogenicity No data available
- (g) STOT – single exposure No data available
- (h) STOT – repeated exposure Subacute toxicity (90-day oral administration): no substantive findings relevant to humans.
- (i) Aspiration Hazard Substance poses a possible aspiration hazard.

SECTION 12 ECOLOGICAL INFORMATION

- 12.1 **Toxicity**
Acute toxicity (semi-static) [OECD TG 203] Rainbow Trout (*Oncorhynchus*) 96 hour NOEC > 100 mg/L

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mykiss:) 96 hour LC50 > 100 mg/L

Acute immobilisation (static) [OECD TG 202] Water Flea (*Daphnia magna*) : 48 hour NOEC > 100 mg/L
48 hour EC50 > 100 mg/L

Growth inhibition (b = biomass; m =growth) [OECD TG 201] Algae (*Scenedesmus subspicatus*): NOEC (m) > 100 mg/L
72 hour EbC50 > 100 mg/L
72 hour EmC50 > 100 mg/L

Respiration inhibition [OECD TG 209] Aerobic Waste Water Bacteria : 3 hour EC50 > 100 mg/L

12.2 Persistence and Degradability

BoD Test Result This product is inherently biodegradable

12.3 Bioaccumulative Potential

Partition Coefficient: n-octanol/water log P_{ow} = 1.68 @ 20°C

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods: Consult regulations of competent authority for disposal requirements

SECTION 14 TRANSPORTATION INFORMATION

14.1 Land transport: ADR: Not classified as dangerous in the meaning of transport regulations.
RID: Not classified as dangerous in the meaning of transport regulations.

14.2 Sea transport: IMDG-CODE: Not classified as dangerous in the meaning of transport regulations.

14.3 Air transport: IATA_C: Not classified as dangerous in the meaning of transport regulations.
IATA_P: Not classified as dangerous in the meaning of transport regulations.

SECTION 15 REGULATORY INFORMATION

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

The product is classified and labeled in accordance with EC Directives or respective national laws.

Chemical Inventory Status	Australia (AICS): Listed	Canada (DSL): Listed
	China: Listed	Korea (KECL): Listed
	New Zealand (NZIoC): Listed	United States (TSCA): Listed

United States SARA 302/304 No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA.

United States SARA 311/312 Acute Health; Fire

United States SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the De Minimis reporting levels established by SARA Title III, Section 313 and 40 CFR 372.

15.2 Chemical Safety Assessment No Chemical Safety Assessment has been carried out.

