



Rynex-3 Dry Cleaning Solvent

Update
1/04/2011

Version
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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product information

Commercial Product Name : Rynex-3 Dry Cleaning Solvent

Company : Rynex Technologies LLC
1909 West Oakridge Dr
Albany, GA. 31707 USA

Telephone : +1 229-317-7850

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Contact Point : www.rynex.com info@rynex.com

Emergency telephone number : CHEMTREC +1 800 424-9300 24/7

2. HAZARDS IDENTIFICATION



HAZARD DESIGNATION: Irritant

Information pertaining to particular dangers for man and environment:

R36 Irritating to eyes.



GHS LABEL ELEMENTS: Warning

H319: Causes serious eye irritation.

PREVENTION:

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.

Authorisation: Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical nature : Aliphatic Propylene Glycol Ether

Usage : Dry Cleaning Solvent

	Concentration%	EINECS/ ELINCS	R-phrases	Symbols
Dipropylene Glycol t-Butyl Ether	90-95	422-300-4	R36	Xi

4. FIRST AID MEASURES

General advice : none

Eye contact : Rinse immediately with plenty of water for at least 30 minutes. If eye irritation persists, consult a physician.



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Skin contact :	Wash off immediately with soap and plenty of water.
Inhalation :	Move to fresh air.
Ingestion :	Rinse mouth. Do not induce vomiting. If you feel unwell, consult a physician.
Notes to physician	
Special treatment advice :	none

5. FIRE FIGHTING MEASURES

Specific hazards during fire-fighting :	In case of fire can be formed: carbon monoxide, carbon dioxide, hydrocarbons
Special protective equipment for fire-fighters :	In the event of fire, wear self-contained breathing apparatus and full protective gear.
Suitable extinguishing media :	Use powder, alcohol foam, carbon dioxide, or water spray.
Extinguishing media which must not be used for safety reasons :	Do not use a solid water stream as it may scatter and spread fire.
General hazard :	Product will burn in a fire. Keep container tightly closed when not in use. Store away from heat, sparks or other sources of ignition.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions :	Refer to Section 8, Exposure Control/Personal Protection.
Environmental precautions :	As with all industrial chemicals, use of good chemical hygiene and environmental stewardship practices is recommended.
Methods for cleaning up :	Absorb spilled material and place in appropriate container for disposal.
Additional advice :	Spilled material may cause surfaces to become slippery. Use caution to prevent falls. Clean up spills immediately. Do not walk through spilled material.

7. HANDLING AND STORAGE

Handling

Safe handling advice :	Use with adequate ventilation. Avoid contact with eyes. Avoid prolonged or repeated contact with skin.
Advice on protection against fire and explosion :	Product will burn in a fire. Keep container tightly closed when not in use. Store away from heat, sparks or other sources of ignition.

Storage

Requirements for storage areas and containers:	Keep container tightly closed. Store out of direct sunlight. .
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional technical information on the plant:	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).
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Components with workplace control parameters

Components	CAS Number	Value	Basis / Remarks
Dipropylene Glycol t-Butyl Ether	132739-31-2	Non allocated	

Personal protective equipment

Respiratory protection :	Use breathing protection with high concentrations. A respiratory program that meets requirements of EN 149 must be followed whenever workplace conditions warrant a respirator's use.
Hand protection :	Wear nitrile or other appropriate protective gloves to prevent skin exposure.
Eye protection :	Where splashing is possible, wear appropriate protective eyeglasses or chemical safety goggles as described by European Standard EN166.
Skin and body protection :	Wear appropriate protective clothing to minimize contact with skin.
Hygiene measures :	Use of proper chemical hygiene practices in the workplace is recommended. Keep away from food and foodstuffs. Instantly remove soiled garments. Wash before reuse. Wash hands during breaks and at the end of work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form :	Liquid
Colour :	clear
Odour :	slight ether-like

Other data

Melting point :	<-25°C
Boiling point :	215°C
Flash point :	> 93,3°C (PMCC)
Autoignition temperature :	>268°C
Upper explosion limit :	6,7
Lower explosion limit :	1,7
Vapour pressure :	42,4 Pa @ 25°C
Specific gravity :	0,90977
Water solubility :	111,0 g/L @ 20°C (pH 4,68-4,95)
pH :	neutral
Oxidizing properties :	none
Partition co-efficient : (n-octanol/water)	log P _{ow} = 1,68 @ 20°C
Hydrolysis as a function of pH :	T _{1/2} @ pH 4,0, 7,0, and 9,0: > 1 year @ 25°C

10. STABILITY AND REACTIVITY

Chemical stability :	This material is stable when properly handled and stored.
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Conditions to avoid :	Extended contact with air or oxygen. The potential for peroxide formation is enhanced when these solvents are used in processes such as distillation. Heat, sparks, open flame, other ignition sources, and oxidizing conditions.
Substances to avoid :	Strong acids. Strong oxidizing agents. Air or oxygen.
Decomposition products :	Carbon monoxide and other toxic vapors.
Hazardous polymerization :	Not expected to occur.
Reactions with air and water:	Not expected to occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	ORAL LD ₅₀	DERMAL LD ₅₀	Inhalation LC ₅₀
Dipropylene Glycol t-Butyl Ether	2600 mg/kg (rat)	>2000 mg/kg (rabbit)	

Irritation, sensitization, other data toxicology

Skin Irritation :	rabbit
Result:	slight irritant
Eye irritation :	rabbit
Result:	mild to moderate irritant
Sensitization :	There is limited evidence to suggest that primary composition component may cause skin sensitization.
Genotoxicity	<i>Salmonella typhimurium</i> TA 1535, TA 1537, TA 98, TA 100
Result :	negative

12. ECOLOGICAL INFORMATION

Ecotoxicity data

Test species	Results
Acute toxicity (semi-static) [OECD TG 203] Rainbow Trout (<i>Oncorhynchus mykiss</i>) :	96 hour NOEC > 100 mg/L 96 hour LC50 > 100 mg/L
Acute immobilisation (static) [OECD TG 202] Water Flea (<i>Daphnia magna</i>) :	48 hour NOEC > 100 mg/L 48 hour EC50 > 100 mg/L
Growth inhibition (b = biomass; m =growth) [OECD TG 201] Algae (<i>Scenedesmus subspicatus</i>):	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

Chemical Fate Information

BOD Test	
Result :	This product is inherently biodegradable

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1**13. DISPOSAL CONSIDERATIONS**

Recommendations: Consult regulations of competent authority for disposal requirements.

14. TRANSPORTATION INFORMATION

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

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

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.

15. REGULATORY INFORMATION

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

Hazardous components which must be listed on the label : Dipropylene Glycol t-Butyl Ether

Symbol(s) : Xi Irritant

R-phrases) : R36 Irritating to eyes.

S-phrases) : S25 Avoid contact with the eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Other information : Handle in accordance with good industrial hygiene and safety practice.

16. OTHER INFORMATION

Relevant R-Phrases : R36 - Irritating to eyes.

Responsible for SDS: Environmental Protection Contact person: Dep. CEQ Tel.: +1 229-317-7850

The information presented herein is believed to be accurate, but is not warranted. It does not represent any assurance of properties of the product. The specifications are to be drawn from the corresponding leaflet.