

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
 Trade name : DS 102 - Window Cleaner
 Product group : Trade product

1.2. Recommended use and restrictions on use

Recommended use : Washing and cleaning products (including solvent based products)

1.3. Supplier

Manufacturer

AxSys Direct Manufacturing
 4523 97 Street
 T6E 5Y8 Edmonton, AB - Canada
 T 780-436-2606 - F 780-434-5904

1.4. Emergency telephone number

Emergency number : FOR EMERGENCIES INVOLVING DANGEROUS GOODS CALL CANUTEC'S 24HR NUMBER 613-996-6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS-CA)

Flammable liquids, Category 2	H225	Highly flammable liquid and vapour.
Acute toxicity (inhalation:vapour) Category 4	H332	Harmful if inhaled.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements

GHS-CA labelling

Hazard pictograms (GHS-CA) :  

Signal word (GHS-CA) : Danger

Hazard statements (GHS-CA) : H225 - Highly flammable liquid and vapour.
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.
 H332 - Harmful if inhaled.

Precautionary statements (GHS-CA) : P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P103 - Read label before use.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground/bond container and receiving equipment.

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P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take action to prevent static discharges.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep 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.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-CA)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS-CA)
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butyl glycoether	butyl glycoether 2-BE / 2-butoxy-1-ethanol / 2-butoxyethanol / 2-n-butoxyethanol / 2-normal-butoxyethanol / 3-oxa-1-heptanol / A13-0993 / beta-butoxyethanol / BGE / breaxit 8002 / BUCS / butoxyethanol / butoxyethanol, normal- / butyl cellosolve / butylcellu-sol / butylescosolve / butylethyleneglycol, ortho- / butylglycol ether / butylglycol-cellosolve / butyljaysolve / butylmonoetherglycol / butyloxitol (=2-butoxyethanol) / Caswell No. 121 / CHIMEC NR / COREXIT 7610 / DOWANOL EB / EGBE / EKTASOLVE EB / ethanol, 2-butoxy- / ethylene glycol monobutyl ether / ethylene glycol n-butyl ether / ethylene glycol normal-butyl ether / ethyleneglycol n-butyl ether / ethyleneglycolmonobutyl ether / ethyleneglycolmono-normal-butyl ether / ethyleneglycol-normal-butyl ether / GAFCOL EB / glycol ether EB / glycol ether EB acetate / glycolbutyl ether / glycolmonobutyl ether / jeffersol	CAS-No.: 111-76-2	5 – 20	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS-CA)
	EB / minex BDH / monobutyl ether of ethyleneglycol / monobutylglycol ether / monoethyleneglycolmonobutyl ether / n-butoxyethanol / normal-butoxyethanol / O-butylethyleneglycol / ortho-butylethyleneglycol / POLY-SOLV EB / Substances with a flash-point above 60 °C and not more than 100 °C / Substances with a flash-point above 60 °C and not more than 100 °C, which do not belong to another class			

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2-propanol	1-methylethanol / 1-methylethyl alcohol / 2-hydroxypropane / 2-propanol / 2-propanol, anhydrous / 2-propyl alcohol / AI3-01636 / AIP (=alcohol isopropylique) / alcojel / alcole isopropilico / alcosolve / AVANTIN / AVANTINE / AVATINE / beta-Hydroxypropan / beta-Oxypropan / caswell No 507 / chromar (=2-propanol) / combischutz / CORONA WIRE CLEANER (=2-propanol) / CTL R-53 reducer / dimethyl carbinol / DISK DRIVE HEAD CLEANING KIT (=2-propanol) / ethyl carbinol / hartosol / hydroxypropane / imsol / imsol A / IPA SGL / IPA T1 / IPA USP / IPA, anhydrous / IPA-EG / isoethylcarbinol / isohol / isopropanol, anhydrous / isopropanolo / isopropyl alcohol / isopropyl alcohol, anhydrous / isopropylalcohol / isopropylalcohol, watervrij / KENCO #880-T FLUX THINNER (=2-propanol) / LENS CLENS #3 (=2-propanol) / Iutosol / normal-propan-2-ol / n-propan-2-	CAS-No.: 67-63-0	5 – 20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS-CA)
	ol / perspirit / persprit / petrohol / Petrosol / PRO / propan-2-ol / propanol 2 ULSI / Propol / propyl alcohol (=sec-propyl alcohol) / pseudo-propyl alcohol / secondary-propyl alcohol / sec-propanol / sec-propyl alcohol / spectrar / STCC 4904205 / sterisol hand disinfectant / takineocol / TEXPADS / visco 1152 / XEROX FILM REMOVER / XIPAX 4.01			
Bio-Soft N91-8	C9-C11 primair alcohol ethoxylaat (=dobanol 91-6)	CAS-No.: 68439-46-3	4	Acute Tox. 4 (Oral), H302

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
First-aid measures general	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Unsuitable extinguishing media

No additional information available

5.3. Specific hazards arising from the hazardous product

Fire hazard : Highly flammable liquid and vapour.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.4. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

butyl glycoether (111-76-2)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Butoxyethanol (EGBE)
ACGIH OEL TWA [ppm]	20 ppm (2-Butoxyethanol (EGBE); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
Remark (ACGIH)	Eye & URT irr
USA - OSHA - Occupational Exposure Limits	
Local name	2-Butoxyethanol
OSHA PEL (TWA) [1]	240 mg/m ³
OSHA PEL (TWA) [2]	50 ppm
2-propanol (67-63-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	400 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: dark blue
Odour	: acetone-like
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	: Highly flammable liquid and vapour.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	: No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.

ATE CA (vapours)	12.379 mg/l/4h
butyl glycoether (111-76-2)	
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	435 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity; 435 mg/kg bodyweight; Rabbit; Weight of evidence; Equivalent or similar to OECD 402)

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butyl glycoether (111-76-2)	
LC50 inhalation rat (mg/l)	2.17 mg/l/4h (Rat; Experimental value; 2.35 mg/l/4h; Rat; Experimental value)
LC50 inhalation rat (ppm)	450-486,Rat; Weight of evidence
ATE CA (oral)	500 mg/kg bodyweight
ATE CA (dermal)	435 mg/kg bodyweight
ATE CA (gases)	4500 ppmv/4h
ATE CA (vapours)	2.17 mg/l/4h
ATE CA (dust,mist)	2.17 mg/l/4h

2-propanol (67-63-0)	
LD50 oral rat	5840 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Experimental value)
LD50 dermal rabbit	16400 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value)
LC50 inhalation rat (ppm)	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male/female, Experimental value)
ATE CA (oral)	5840 mg/kg bodyweight

Bio-Soft N91-8 (68439-46-3)	
LD50 oral rat	> 1000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
ATE CA (oral)	500 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

2-propanol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

butyl glycoether (111-76-2)	
Partition coefficient n-octanol/water (Log Pow)	0.81 (Experimental value; BASF test; 25 °C)

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2-propanol (67-63-0)	
LC50 - Fish [1]	9640 – 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	0.05 (Weight of evidence approach, 25 °C)

12.2. Persistence and degradability

butyl glycoether (111-76-2)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.71 g O ₂ /g substance
Chemical oxygen demand (COD)	2.2 g O ₂ /g substance
ThOD	2.305 g O ₂ /g substance
BOD (% of ThOD)	0,31

2-propanol (67-63-0)	
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.19 g O ₂ /g substance
Chemical oxygen demand (COD)	2.23 g O ₂ /g substance
ThOD	2.4 g O ₂ /g substance

Bio-Soft N91-8 (68439-46-3)	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

butyl glycoether (111-76-2)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	0.81 (Experimental value; BASF test; 25 °C)

2-propanol (67-63-0)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	0.05 (Weight of evidence approach, 25 °C)

Bio-Soft N91-8 (68439-46-3)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

butyl glycoether (111-76-2)	
Surface tension	0.027 N/m (25 °C)
Partition coefficient n-octanol/water (Log Pow)	0.81 (Experimental value; BASF test; 25 °C)

2-propanol (67-63-0)	
Surface tension	0.021 N/m (25 °C)
Ecology - soil	No (test)data on mobility of the substance available.
Partition coefficient n-octanol/water (Log Pow)	0.05 (Weight of evidence approach, 25 °C)

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12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

14.1. UN number

UN-No. (TDG) : UN1219
DOT NA no. : Not applicable
UN-No. (IMDG) : 1219
UN-No. (IATA) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (TDG) : ISOPROPYL ALCOHOL
Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (IMDG) : ISOPROPANOL (ISOPROPYL ALCOHOL)
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

TDG

Transport hazard class(es) (TDG) : 3
Hazard labels (TDG) : 3



DOT

Transport hazard class(es) (DOT) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (TDG) : II
Packing group (DOT) : Not applicable
Packing group (IMDG) : II
Packing group (IATA) : Not applicable

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14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

TDG

UN-No. (TDG) : UN1219
Explosive Limit and Limited Quantity Index : 1 L
Excepted quantities (TDG) : E2
Passenger Carrying Road Vehicle or Passenger : 5 L
Carrying Railway Vehicle Index

DOT

No data available

IMDG

Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP1
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG) : B
Flash point (IMDG) : 12°C c.c.
Properties and observations (IMDG) : Colourless, mobile liquid. Flashpoint: 12°C c.c. Explosive limits: 2% to 12% Miscible with water.

IATA

No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Bio-Soft N91-8 (68439-46-3)

Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

butyl glycoether (111-76-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Bio-Soft N91-8 (68439-46-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

SDS Major/Minor : None

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Full text of H-statements:	
H225	Highly flammable liquid and vapour.
H227	Combustible liquid
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

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While the descriptions, data and information contained herein are presented in good faith and believed to be current, it is provided for guidance only. Because there are so many factors that may affect processing, application or other use, we recommended that you perform an assessment to determine the suitability of the product for your particular purpose prior to use. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any laws or regulations. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding the product described. We assume NO responsibility for any injuries sustained from misuse or misapplication of this product or that might be experienced due to inhalation, ingestion, absorption or other contact with this product. In no case shall the descriptions, information or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such, it has been given and accepted at your risk.