<u>Product name</u>	Product Type	Tab #
Alcohol Gel Sanitizer, Betco	Liquid	1
Ax-it Baseboard Stripper, Betco	Aerosol	2
Best Scrub, Betco	Liquid	3
One Step, Betco	Liquid	4
Boardwalk Gum Buster Gum Remover,	Liquid	5
Bol Maid, Betco	Liquid	6
Champion Sprayon Dust n' More w/ lemon oil	Aerosol	7
Champion Lemon Furniture Polish, Chase	Aerosol	8
CitruSolv Concentrate, Betco	Liquid	9
Clario Foaming Antibacterial Skin Cleanser	Liquid	10
DBC Lime & Mineral Solvent, National Chemicals Inc.	Liquid	11
D-Mineralizer Concentrate, Wayne Concept Manf. Co. Inc.	Liquid	12
Dynamo Liquid 5 galon Detergent, Phoenix	Liquid	13
ECOS Pro HD White Board Cleaner, Venus Laboratories	Liquid	14
Extreme, Betco	Liquid	15
FiberPRO Red 'N' Brown Out, Betco	Liquid	16
Green Earth Clear Foaming Skin Cleanser	Liquid	17
Green Earth PERoxide Cleaner, Betco	Liquid	18
Hard as Nails, Betco	Liquid	19
LINPOL GREEN AD, Pollet	Liquid	20
Lonza Disinfectant Wipes Plus	Liquid	21
Peroxi-Det, Wayne Products-Janitors Supply	Liquid	22
pH7 Ultra, Betco	Liquid	23
POLBIO ENZYSAN 2000, Pollet	Liquid	24
POLGREEN INDOORS, Pollet	Liquid	25
Purebright Ultra Germicidal Bleach, KIK	Liquid	26
Quat-Stat SC, Betco	Liquid	27
Spot Bet, Betco	Liquid	28
Stix, Betco	Liquid	29
Super Sorb, Fresh Products	Dry Powder	30
Wave Urinal Deodorizer, Fresh Products	Solid Plastic	31

Material Safety Data Sheet



Alcohol Gel Sanitizer

1. Product and company identification

Product name

: Alcohol Gel Sanitizer

Supplier

: Betco Corporation 1001 Brown Avenue Toledo, OH 43607

www.betco.com 888-462-3826

Manufacturer

: Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607

www.betco.com 888-462-3826

Code

: 776

MSDS#

: 776

Validation date

: 1/6/2016.

Print date

: 1/8/2016.

In case of emergency

: Chemtrec (800) 424-9300

Product type

: Liquid.

2. Hazards identification

nergency overview

Physical state

: Liquid. [Gel]

Color

: Colorless. Clear.

Odor

: Fruity.

Signal word

: WARNING!

Hazard statements

: FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT

wtem # 7742900

MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Precautionary measures

Do not handle until all safety precautions have been read and understood. Do not breathe vapor or mist. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes. Keep away from heat, sparks and

flame. Keep container tightly closed.

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Routes of entry

: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation

: No known significant effects or critical hazards.

Ingestion

: No known significant effects or critical hazards.

Skin

: May cause skin irritation.

Eyes

: Severely irritating to eyes. Risk of serious damage to eyes.

Potential chronic health effects

Chronic effects

: Contains material that may cause target organ damage, based on animal data.

Carcinogenicity

: No known significant effects or critical hazards.

Mutagenicity

: No known significant effects or critical hazards.

Teratogenicity

: No known significant effects or critical hazards.

Developmental effects

: No known significant effects or critical hazards.

2. Hazards identification

ertility effects

: No known significant effects or critical hazards.

Target organs

: Contains material which may cause damage to the following organs: blood, the nervous system, the reproductive system, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

Medical conditions aggravated by overexposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
ethanol	64-17-5	40 - 60

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact Check for and remove any contact lenses. Immediately flush eyes with plenty of water

for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately. In case of contact with eyes, rinse immediately with plenty of

water.

vin contact Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical

attention if irritation develops.

Inhalation Move exposed person to fresh air. If not breathing, if breathing is irregular or if

respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention

immediately.

Ingestion Wash out mouth with water. Do not induce vomiting unless directed to do so by medical

personnel. Never give anything by mouth to an unconscious person. Get medical

attention immediately.

Protection of first-aidersNo action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or

suspected that tumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist

immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product

: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable

: Use dry chemical, CO2, water spray (fog) or foam.

Not suitable

: Do not use water jet.

pecial exposure hazards

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

5. Fire-fighting measures

azardous thermal ecomposition products

: Decomposition products may include the following materials: carbon dioxide carbon monoxide

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Handling

: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

ngredient	Exposure limits	
ethanol	ACGIH TLV (United States, 4/2014). STEL: 1000 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 1000 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.	

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Eyes

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin

 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
 When there is a risk of ignition from static electricity, wear anti-static protective clothing.
 For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Aicohol Gel Sanitizer

9. Physical and chemical properties

hysical state : Liquid. [Gel]

Flash point : Closed cup: 17°C (62.6°F)

Color : Colorless. Clear.

Odor : Fruity. Ha : 6.5 to 8.5 Relative density : 0.9006

Dispersibility properties

: Easily dispersible in the following materials: cold water and hot water.

Solubility : Easily soluble in the following materials: cold water. Soluble in the following materials: hot water.

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld,

braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:

oxidizing materials

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanol	LC50 Inhalation Vapor LD50 Oral	Rat Rat	124700 mg/m³ 7 g/kg	4 hours

Conclusion/Summary

: Not available.

Chronic toxicity

Conclusion/Summary

: Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
	Eyes - Moderate irritant	Rabbit	-	milligrams 0.066666667 minutes 100	-
	Eyes - Moderate irritant	Rabbit	-	milligrams 100	-
	Eyes - Severe irritant	Rabbit	-	microliters 500	_
	Skin - Mild irritant	Rabbit	_	milligrams 400	-
	Skin - Moderate irritant	Rabbit	-	milligrams 24 hours 20 milligrams	-

Conclusion/Summary

: Not available.

Sensitizer

Conclusion/Summary

: Not available.

Carcinogenicity

Alcohol Gel Sanitizer

11. Toxicological information

Conclusion/Summary

: Not available.

<u>Classification</u>

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ethanol	A3	1	-	-	-	-

<u>Mutagenicity</u>

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary

: Not available.

12. Ecological information

Ecotoxicity

: No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure	
ethanol	Acute EC50 17.921 mg/l Marine water Acute EC50 2000 μg/l Fresh water Acute LC50 25500 μg/l Marine water Acute LC50 42000 μg/l Fresh water Chronic NOEC 4.995 mg/l Marine water Chronic NOEC 0.375 ul/L Fresh water	Algae - Ulva pertusa Daphnia - Daphnia magna Crustaceans - Artemia franciscana - Larvae Fish - Oncorhynchus mykiss Algae - Ulva pertusa Fish - Gambusia holbrooki - Larvae	96 hours 48 hours 48 hours 4 days 96 hours 12 weeks	

Conclusion/Summary

: Not available.

Persistence/degradability

Conclusion/Summary

: Not available.

13. Disposal considerations

Waste disposal

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

	T					
egulatory	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	1993	FLAMMABLE LIQUIDS, N.O.S.	3	II	1 AMERICAN AND ADDRESS OF THE PARTY OF THE P	Limited quantity Yes.
TDG Classification	1993	FLAMMABLE LIQUIDS, N.O.S.	3	II		Explosive Limit and Limited Quantity Index
Mexico Classification	1993	FLAMMABLE LIQUIDS, N.O.S.	3	11		-
ADR/RID Class	1993	FLAMMABLE LIQUIDS, N.O.S.	3	11		Special provisions 640 (C) Tunnel code (D/E)
IMDG Class	1993	FLAMMABLE LIQUIDS, N.O.S.	3	11		-
TA-DGR Class	1993	FLAMMABLE LIQUIDS, N.O.S.	3	II		-

PG*: Packing group

15. Regulatory information

HCS Classification

: Flammable liquid Irritating material Target organ effects

U.S. Federal regulations

: TSCA 8(a) PAIR: 2-methylpropan-2-ol

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): Not determined.

SARA 302/304: No products were found.

SARA 311/312 Hazards identification: Fire hazard, Immediate (acute) health hazard,

Delayed (chronic) health hazard

Clean Air Act Section 112 : Not listed

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 : Not listed

Class I Substances

Clean Air Act Section 602 : Not listed

Class II Substances

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals

: Not listed

(Essential Chemicals)

1/8/2016. 776 7/9

15. Regulatory information

State regulations

Massachusetts

: The following components are listed: ETHYL ALCOHOL

New York

: None of the components are listed.

New Jersey

: The following components are listed: ETHYL ALCOHOL; ALCOHOL

Pennsylvania

: The following components are listed: DENATURED ALCOHOL

Canada inventory

: Not determined.

International regulations

International lists

: Australia inventory (AICS): Not determined. China inventory (IECSC): Not determined.

Japan inventory: Not determined. Korea inventory: Not determined.

Malaysia Inventory (EHS Register): Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined.

Chemical Weapons

Convention List Schedule

I Chemicals

Chemical Weapons Convention List Schedule

II Chemicals

Chemical Weapons

Convention List Schedule

II Chemicals

: Not listed

: Not listed

: Not listed

16. Other information

Label requirements

: FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Hazardous Material Information System (U.S.A.)

2 4 **Flammability** 0 Physical hazards

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of printing

: 1/8/2016.

Date of issue

: 1/6/2016.

Date of previous issue

: 10/12/2012.

Version

: 0.04

Prepared by

: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

<u>Product name</u>	Product Type	Tab #
Alcohol Gel Sanitizer, Betco	Liquid	1
Ax-it Baseboard Stripper, Betco	Aerosol	2
Best Scrub, Betco	Liquid	3
One Step, Betco	Liquid	4
Boardwalk Gum Buster Gum Remover,	Liquid	5
Bol Maid, Betco	Liquid	6
Champion Sprayon Dust n' More w/ lemon oil	Aerosol	7
Champion Lemon Furniture Polish, Chase	Aerosol	8
CitruSolv Concentrate, Betco	Liquid	9
Clario Foaming Antibacterial Skin Cleanser	Liquid	10
DBC Lime & Mineral Solvent, National Chemicals Inc.	Liquid	11
D-Mineralizer Concentrate, Wayne Concept Manf. Co. Inc.	Liquid	12
Dynamo Liquid 5 galon Detergent, Phoenix	Liquid	13
ECOS Pro HD White Board Cleaner, Venus Laboratories	Liquid	14
Extreme, Betco	Liquid	15
FiberPRO Red 'N' Brown Out, Betco	Liquid	16
Green Earth Clear Foaming Skin Cleanser	Liquid	17
Green Earth PERoxide Cleaner, Betco	Liquid	18
Hard as Nails, Betco	Liquid	19
LINPOL GREEN AD, Pollet	Liquid	20
Lonza Disinfectant Wipes Plus	Liquid	21
Peroxi-Det, Wayne Products-Janitors Supply	Liquid	22
pH7 Ultra, Betco	Liquid	23
POLBIO ENZYSAN 2000, Pollet	Liquid	24
POLGREEN INDOORS, Pollet	Liquid	25
Purebright Ultra Germicidal Bleach, KIK	Liquid	26
Quat-Stat SC, Betco	Liquid	27
Spot Bet, Betco	Liquid	28
Stix, Betco	Liquid	29
Super Sorb, Fresh Products	Dry Powder	30
Wave Urinal Deodorizer, Fresh Products	Solid Plastic	31

SAFETY DATA SHEET



Ax-It Baseboard Stripper

Section 1. Identification

GHS product identifier

: Ax-It Baseboard Stripper

Other means of identification

: Not available.

Product type

: Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier's details

: Betco Corporation 1001 Brown Avenue Toledo, OH 43607 www.betco.com 888-462-3826

Emergency telephone number (with hours of operation)

: Chemtrec 800-424-9300 (24 Hour)

Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Glassification of the ibstance or mixture : FLAMMABLE AEROSOLS - Category 1 SKIN CORROSION/IRRITATION - Category 1

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable aerosol.

Causes severe skin burns and eye damage.

Precautionary statements

Prevention

: Wear protective gloves: < 1 hour (breakthrough time): butyl rubber. Wear eye or face protection: Recommended: splash goggles. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Do not breathe dust or mist. Wash hands thoroughly after handling.

Response

: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or physician.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Section 2. Hazards identification

Hazards not otherwise

: None known

classified

ection 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of

: Not available.

identification

CAS number/other identifiers

CAS number

: Not applicable.

Product code

: 099

Ingredient name	%	CAS number
2-Butoxyethanol; Ethylene glycol monobutyl ether 2-aminoethanol ethanediol propane	≥10 - <21 ≥5 - <8 ≥5 - <8 ≥1 - <3	111-76-2 141-43-5 107-21-1 74-98-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation

: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact

: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Eye contact

: Causes serious eye damage.

Inhalation

: No known significant effects or critical hazards.

Skin contact

: Causes severe burns.

Ingestion

: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact

: Adverse symptoms may include the following:

pain watering redness

Inhalation

: Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact

: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion

Adverse symptoms may include the following:

stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments

: No specific treatment.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

Specific hazards arising from the chemical

: Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

Special protective actions r fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency ersonnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating. drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any ncompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits	
Ingredient name	Exposure limits
2-Butoxyethanol; Ethylene glycol monobutyl ether	OSHA PEL 1989 (United States, 3/1989).
	Absorbed through skin.
,	TWA: 25 ppm 8 hours.
	TWA: 120 mg/m³ 8 hours.
	NIOSH REL (United States, 10/2013).
	Absorbed through skin.
	TWA: 5 ppm 10 hours.
	TWA: 24 mg/m³ 10 hours.
	ACGIH TLV (United States, 4/2014).
	TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 2/2013).
	Absorbed through skin.
	TWA: 50 ppm 8 hours.
	TWA: 240 mg/m³ 8 hours.
2-aminoethanol	ACGIH TLV (United States, 4/2014).
	TWA: 3 ppm 8 hours.
	TWA: 7.5 mg/m³ 8 hours.
	STEL: 6 ppm 15 minutes.
	STEL: 15 mg/m³ 15 minutes.
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 3 ppm 8 hours.
	TWA: 8 mg/m³ 8 hours.
	STEL: 6 ppm 15 minutes.
	STEL: 15 mg/m³ 15 minutes.
	NIOSH REL (United States, 10/2013).
{	TWA: 3 ppm 10 hours.
	TWA: 8 mg/m³ 10 hours.
	STEL: 6 ppm 15 minutes.
	STEL: 15 mg/m³ 15 minutes.
	OSHA PEL (United States, 2/2013).
	TWA: 3 ppm 8 hours.
-th	TWA: 6 mg/m³ 8 hours.
ethanediol	OSHA PEL 1989 (United States, 3/1989).
	CEIL: 50 ppm
	CEIL: 125 mg/m³
	ACGIH TLV (United States, 4/2014).
	C: 100 mg/m³ Form: Aerosol
propane	OSHA PEL 1989 (United States, 3/1989).
	TWA: 1000 ppm 8 hours.
	TWA: 1800 mg/m³ 8 hours.
	NIOSH REL (United States, 10/2013).
	TWA: 1000 ppm 10 hours.
,	TWA: 1800 mg/m³ 10 hours.
	OSHA PEL (United States, 2/2013).
	TWA: 1000 ppm 8 hours.
	TWA: 1800 mg/m³ 8 hours.

Appropriate engineering controls

Environmental exposure controls

- : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: splash goggles

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. < 1 hour (breakthrough time): butyl rubber

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Personal protective equipment (Pictograms)



Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Aerosol. Compressed gas. Gel]

Color : Colorless. Odor : Pleasant. Odor threshold : Not available.

pH : 11.5 to 12.5 Melting point : Not available. **Boiling point** : Not available.

Flash point : Closed cup: -104.4°C (-155.9°F)

vaporation rate : Not available. /lammability (solid, gas) : Not available. Lower and upper explosive : Not available.

(flammable) limits

: Not available.

Vapor pressure Vapor density : Not available.

Section 9. Physical and chemical properties

Relative density

: 0.963

Solubility

: Easily soluble in the following materials: hot water.

artition coefficient: n-

octanol/water

: Not available.

Auto-ignition temperature

: Not available.

Decomposition temperature : Not available. Viscosity

: Not available.

Aerosol product

Type of aerosol

: Spray

Heat of combustion

: 9.546 kJ/g

Section 10. Stability and reactivity

Reactivity

: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: Avoid all possible sources of ignition (spark or flame).

Incompatible materials

: No specific data.

azardous decomposition roducts

: Under normal conditions of storage and use, hazardous decomposition products should

milligrams

not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Butoxyethanol; Ethylene glycol monobutyl ether	LC50 Inhalation Gas.	Rat	450 ppm	4 hours
	LD50 Dermal LD50 Oral	Rabbit Rat	220 mg/kg 250 mg/kg	-
2-aminoethanol ethanediol	LD50 Oral LD50 Oral	Rat Rat	1720 mg/kg 4700 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Butoxyethanol; Ethylene glycol monobutyl ether	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100	_
	Skin - Mild irritant	Rabbit	-	milligrams 500	-
2-aminoethanol	Eyes - Severe irritant	Rabbit	-	milligrams 250	-
)	Skin - Moderate irritant	Rabbit	-	Micrograms 505 milligrams	-
ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
	Eyes - Mild irritant	Rabbit	-	milligrams 1 hours 100	-
	Eyes - Moderate irritant	Rabbit	-	milligrams 6 hours 1440	_

Section 11. Toxicological information

Skin - Mild irritant	Rabbit	-	555	-
			milligrams	

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
2-Butoxyethanol; Ethylene glycol monobutyl ether	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name		Route of exposure	Target organs
propane	Category 3		Respiratory tract irritation

specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely

routes of exposure

: Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact

: Causes serious eye damage.

Inhalation

: No known significant effects or critical hazards.

Skin contact

: Causes severe burns.

Ingestion

: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

: Adverse symptoms may include the following:

pain watering redness

Inhalation

: Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact

: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion : Adverse symptoms may include the following:

stomach pains

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects

: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects

: Not available.

Potential chronic health effects

Not available.

General

: No known significant effects or critical hazards.

Carcinogenicity

: No known significant effects or critical hazards.

Mutagenicity

No known significant effects or critical hazards.No known significant effects or critical hazards.

Teratogenicity

Developmental effects

: No known significant effects or critical hazards.

Fertility effects

: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

ATE value
2860.1 mg/kg 7333.3 mg/kg 73.33 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-Butoxyethanol; Ethylene glycol monobutyl ether	Acute EC50 >1000 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1250000 µg/l Marine water	Fish - Menidia beryllina	96 hours
2-aminoethanol	Acute EC50 8.42 mg/l Fresh water	50 8.42 mg/l Fresh water Algae - Desmodesmus subspicatus	
	Acute LC50 >100000 μg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 150 mg/l Fresh water	Fish - Oncorhynchus mykiss - Yolk-sac fry	96 hours
ethanediol	Acute LC50 6900000 μg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 41000000 μg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8050000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 11610000 µg/l Fresh water	Daphnia - Ceriodaphnia dubia	48 hours
	Chronic NOEC 6090000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential