

## 1. Identification

**Product identifier** n-Butyl Alcohol

### Other means of identification

**CAS number** 71-36-3

**Synonyms** Butanol ; Propyl carbinol

**Recommended use** General purpose solvent.

**Recommended restrictions** Use in accordance with manufacturer's recommendations.

### Manufacturer/Importer/Supplier/Distributor information

**Company Name** Greenfield Global USA Inc. (The technical data referenced below applies to products sold by Greenfield Global Inc., under the names Greenfield Global, Pharmco, and Commercial Alcohols.)

**Address** 58 Vale Road  
Brookfield, CT 06804  
USA

**Telephone** 203.740.3471

**Fax** 203.740.3481

**Company Name** Greenfield Global USA Inc.

**Address** 1101 Isaac Shelby Drive  
Shelbyville, KY 40065  
USA

**Telephone** 502.232.7600

### Emergency phone number

**USA** CHEMTREC: +1.800.424.9300 (CCN 17213)

**International** CHEMTREC: +1.703.527.3887 (CCN 17213)

## 2. Hazard(s) identification

### Hazards for the product as sold

**Physical hazards** Flammable liquids Category 3

### Hazards for the product as sold

**Health hazards** Acute toxicity, oral Category 4  
Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 1  
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation  
Specific target organ toxicity, single exposure Category 3 narcotic effects

### Hazards for the product as sold

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** Flammable liquid and vapor. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. May cause drowsiness or dizziness.

## Precautionary statement

### Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing mist/vapors. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

### Response

If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.

### Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Hazard(s) not otherwise classified (HNOC)

No additional hazards are known to be associated with the expected conditions of use at the time of publication. This document does not address hazards that may arise from uses not reasonably anticipated by the manufacturer.

### Supplemental information

None.

## 3. Composition/information on ingredients

### Substances

Chemical name	Common name and synonyms	CAS number	%
Butyl Alcohol	Butanol Propyl carbinol	71-36-3	100

### Composition comments

All concentrations are in percent by weight.

## 4. First-aid measures

### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

### Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

### Ingestion

Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

### Most important symptoms/effects, acute and delayed

May cause drowsiness or dizziness. Headache. Nausea, vomiting. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain.

### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

### General information

Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

## 5. Fire-fighting measures

### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

### Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Flammable liquid and vapor.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up** Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling** Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not get this material in contact with eyes. Do not taste or swallow. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
Butyl Alcohol (CAS 71-36-3)	PEL	300 mg/m3 100 ppm

#### US. ACGIH Threshold Limit Values (TLV)

Material	Type	Value
Butyl Alcohol (CAS 71-36-3)	TWA	20 ppm

#### NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Material	Type	Value
Butyl Alcohol (CAS 71-36-3)	IDLH	1400 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Material	Type	Value
Butyl Alcohol (CAS 71-36-3)	Ceiling	150 mg/m3 50 ppm

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines****US - California OELs: Skin designation**

Butyl Alcohol (CAS 71-36-3) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Butyl Alcohol (CAS 71-36-3) Skin designation applies.

**US - Tennessee OELs: Skin designation**

Butyl Alcohol (CAS 71-36-3) Can be absorbed through the skin.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Butyl Alcohol (CAS 71-36-3) Can be absorbed through the skin.

**Appropriate engineering controls** Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Chemical goggles and face shield are recommended.

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Skin protection**

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Appropriate respirator selection should be made by a qualified professional.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Clear. Colorless
<b>Odor</b>	Not available.
<b>Melting point/freezing point</b>	-130 °F (-90 °C)
<b>Boiling point or initial boiling point and boiling range</b>	246.2 °F (119 °C)
<b>Flammability</b>	Flammable liquid.
<b>Upper/lower flammability or explosive limits</b>	
Explosive limit - lower (%)	1.4
Explosive limit - upper (%)	11.2
<b>Flash point</b>	95 °F (35 °C)
<b>Auto-ignition temperature</b>	650 °F (343.33 °C)
<b>Decomposition temperature</b>	Not available.

<b>pH</b>	Not available.
<b>Kinematic viscosity</b>	Not available.
<b>Solubility</b>	
<b>Solubility (water)</b>	10 - 99 % Soluble
<b>Partition coefficient (n-octanol/water)</b>	0.88
<b>Vapor pressure</b>	5 hPa
<b>Vapor pressure temp.</b>	68 °F (20 °C)
<b>Density and/or relative density</b>	
<b>Density</b>	0.81 g/cm3 (77 °F (25 °C))
<b>Relative density</b>	Not available.
<b>Vapor density</b>	2.56
<b>Particle characteristics</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Alkaline metals.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause drowsiness or dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Harmful if swallowed.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain.
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### Information on toxicological effects

<b>Acute toxicity</b>	In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Harmful if swallowed.
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<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Butyl Alcohol (CAS 71-36-3)		
<u><b>Acute</b></u>		
<b>Dermal</b>		
LD50	Rabbit	3430 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 17.76 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	790 mg/kg

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Not listed.	
<b>NTP Report on Carcinogens</b>	
Not listed.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation. May cause drowsiness or dizziness.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Product		Species	Test Results
Butyl Alcohol (CAS 71-36-3)			
Aquatic			
Acute			
Algae	EC10	Raphidocelis subcapitata	134 mg/l, 96 Hours
	ErC50	Raphidocelis subcapitata	225 mg/l, 96 Hours
Chronic			
Crustacea	NOEC	Daphnia magna	4.1 mg/l, 21 days
Other			
Acute			
Bacteria	EC10	Pseudomonas putida	2476 mg/l, 17 Hours

<b>Persistence and degradability</b>	No data is available on the degradability of this substance.
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### Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)  
1

<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No data available.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

## US RCRA Hazardous Waste U List: Reference

Butyl Alcohol (CAS 71-36-3)

U031

<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

<b>UN number</b>	UN1120
<b>UN proper shipping name</b>	Butanols ( RQ = 5,000 lbs)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary hazard</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	B1, IB3, T2, TP1
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	203
<b>Packaging bulk</b>	242

### IATA

<b>UN number</b>	UN1120
<b>UN proper shipping name</b>	Butanols
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary hazard</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	3L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### IMDG

<b>UN number</b>	UN1120
<b>UN proper shipping name</b>	BUTANOLS
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary hazard</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-E, S-D
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to** Not established.

**IMO instruments**

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)** This substance is on the TSCA 8(b) inventory and is designated "active".

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Butyl Alcohol (CAS 71-36-3)

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**

Yes

**Classified hazard categories**

Flammable (gases, aerosols, liquids, or solids)  
 Acute toxicity (any route of exposure)  
 Skin corrosion or irritation  
 Serious eye damage or eye irritation  
 Specific target organ toxicity (single or repeated exposure)

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Butyl Alcohol	71-36-3	100

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)**

Not regulated.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Butyl Alcohol (CAS 71-36-3)

Low priority

**US state regulations****US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Butyl Alcohol (CAS 71-36-3)

**US. Massachusetts RTK - Substance List**

Butyl Alcohol (CAS 71-36-3)

**US. New Jersey Worker and Community Right-to-Know Act**

Butyl Alcohol (CAS 71-36-3)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Butyl Alcohol (CAS 71-36-3)

**US. Rhode Island RTK**

Butyl Alcohol (CAS 71-36-3)

**California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes



Country(s) or region	Inventory name	On inventory (yes/no)*
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 17-October-2018

**Revision date** 27-January-2026

**Version #** 02

**HMIS® ratings**  
Health: 3  
Flammability: 3  
Physical hazard: 0

**Disclaimer** This product is subject to Greenfield Global USA Inc.'s terms and conditions, which can be found at <http://www.greenfield.com/tc-po-us/>. Greenfield cannot anticipate all conditions under which this information and this product, or the products of other manufacturers in combination with this product, may be used. The user is responsible for the proper and safe use, handling, storage and disposal of the product, and assumes liability for any loss, injury, damage or expense arising from any failure to do so. The data in this sheet is based on information and experience available at the time of writing.