



Safety Data Sheet

Material Name: Degalvanizer

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Degalvanizer

Synonyms

Cleaner

Chemical Family

Liquified Gas

Product Use

Remove galvanized build-up

Restrictions on Use

For industrial use only.

Manufacturer Information

Carlisle HVAC Products
900 Hensley Lane
Wylie, TX 75098
www.carlislehvac.com

Medical Emergency:

CHEMTREC (USA): (800) 424-9300

MSDS Assistance – 972-442-6545

Technical Assistance – 888-229-2199

Customer Service – 888-229-0199

Section 2 - HAZARDS IDENTIFICATION

Physical hazards Gases under pressure. Liquefied gas

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

GHS Label Elements

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Symbol(s)



Signal Word

Warning

Hazard Statement(s)

Contains gas under pressure; may explode if heated

Precautionary Statement(s)

Prevention

Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Protect from sunlight. Store in a well-ventilated place.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
111-76-2	2-Butoxyethanol	2.5 - 10
64-17-5	Ethyl Alcohol	2.5 - 10
106-97-8	Butane	1 – 2.5
74-98-6	Propane	1- 2.5
	Other components below reportable levels	90 - 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.



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Section 4 - FIRST AID MEASURES

Inhalation

Move to fresh air. Get attention if symptoms persist.

Skin

Get medical attention if irritation develops and persists.

Eyes

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth.

Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

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

Special Hazards Arising from the Chemical

Contents under pressure. During fire, gases hazardous to health may be formed.

Special Protective Equipment and Precautions for Firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions

In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.



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General fire hazards

No unusual fire or explosion hazards noted.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. 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. See Section 8 of the SDS for Personal Protective Equipment. For personal protection, see section 8 of the SDS.

Methods and Materials for Containment and Cleaning Up

Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental Precautions

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

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for Safe Storage, Including any Incompatibilities

Level 1 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Keep containers tightly closed in a dry, cool and well-ventilated place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS).



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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

2-Butoxyethanol	111-76-2
ACGIH TLV:	TWA 20ppm
OSHA PEL	240 mg/m ³
NIOSH	TWA 24 mg/m ³
Ethyl Alcohol	64-17-5
ACGIH TLV	STEL 1000 ppm
OSHA PEL	50 ppm/ 1900 mg/m ³ /1000 ppm
NIOSH	1900 mg/m ³ /1000 ppm
Propane	74-98-6
NIOSH	TWA 1800 mg/m ³ / 1000 ppm
OSHA PEL	1800 mg/m ³ / 1000 ppm
Butane	106-97-8
NIOSH	TWA 5 ppm/1900 mg/m ³ /800 ppm
ACGIH TLV	STEL 1000 ppm



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Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine * in urine	

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2) Skin designation applies.

US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

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

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

Engineering Controls

Good general ventilation (typically 10 air changes per hour) 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.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. 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.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear	pH	9.1 - 10.1 estimated
Physical State	Gas	Form	Aerosol. Liquefied gas.
Odor	Characteristic	Color	Light yellow
Melting point/Freezing Point	Not available.	Explosive Limit Upper/Lower	Not available

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Odor Threshold	Not available	Evaporation Rate	Not available
Autoignition Temp	Not available	Flammability (solid, gas)	Not available
Flammability Limit Upper/Lower	Not available	Flash Point	-156.0 °F (-104.4 °C) Propellant estimated
Vapor Density (air=1)	Not available	Decomposition Temp	Not available
Relative Density	Not available	Water Solubility	Not available
Partition coefficient (n-octanol/water)	Not available	Vapor Pressure	80 - 100 psig @70F estimated
Viscosity	Not available	Specific Gravity (water=1)	0.977 - 0.997
Aerosol spray enclosed space Deflagration density	> 2.52 g/cm ³ Tested	Aerosol spray ignition distance	< 15 cm Tested estimated

Other Information

No additional information available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability

Material is stable under normal conditions.

Possibility of Hazardous Reactions

No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.

Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible Materials

Strong oxidizing agents

Hazardous decomposition products

No hazardous decomposition products are known.



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Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Ingestion Expected to be a low ingestion hazard.

Inhalation Prolonged inhalation may be harmful.

Skin contact No adverse effects due to skin contact are expected.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Eye contact Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Acute Toxicity

May be harmful if swallowed. May be harmful in contact with skin. May be harmful if inhaled. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

2-Butoxyethanol (CAS 111-76-2)

Acute

Oral LD50 Rat 530-2800 mg/kg

Oral LD50 Dog > 695 mg/kg

Oral LD50 Dog 1200 mg/kg

Oral LD100 Rabbit 695 mg/kg

Inhalation LC50 Rabbit 400 ppm, 7 hours

Inhalation LC50 Rat 450 ppm, 4 hours

Dermal LD50 Guinea Pig 230 ml/kg, 24 Hours/ 7.3 ml/kg, 4 Days

Dermal LD50 Rabbit 450 ml/kg, 24 Hours/435 mg/kg, 24 Hours/0.63 ml/kg

Dermal LD50 Rat > 2000 mg/kg, 24 Hours

Butane (CAS 106-97-8)

Acute

Inhalation LC50 Rat 1355 mg/L

Inhalation LC50 Mouse 1237 mg/l, 120 Minutes/52 %, 120 Minutes



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Ethyl Alcohol (CAS 64-17-5)

Acute

Inhalation LC50 Rat > 115.9 mg/l, 4 Hours/ 51.3 mg/l, 6 Hours
Inhalation LC50 Mouse > 60000 ppm/79.43 mg/l, 134 Minutes
Inhalation LC50 Cat 85.41 mg/l, 4.5 Hours/43.68 mg/l, 6 Hours
Oral LD50 Monkey 6000 mg/kg
Oral LD50 Mouse 10500 ml/kg
Oral LD50 Rat 1187 - 2769 mg/kg/7800 ml/kg

Propane (CAS 74-98-6)

Inhalation LC50 Rat 1355 mg/l/658 mg/l/4h
Inhalation LC50 Mouse 1237 mg/l, 120 Minutes/52 %, 120 Minutes

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation

May be irritating to the skin. Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation. May be irritating to eyes.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Reproductive Toxicity

This product is not expected to cause reproductive or developmental effects.

Specific Target Organ Toxicity - Single Exposure

Not classified

Specific Target Organ Toxicity - Repeated Exposure

Not classified

Aspiration hazard

Not an aspiration hazard. Not likely, due to the form of the product.



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Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity Harmful to aquatic life.

15 OZ CARLISLE DEGALVANIZER LB 12PK	Trade Secret
Crustacea:	EC50 Daphnia 13838.1602 mg/l, 48 hours estimated
2-Butoxyethanol	111-76-2
Fish:	LC50 Inland silverside (Menidia beryllina) 1250 mg/l, 96 hours
Ethyl Alcohol	64-17-5
Crustacea:	EC50 Daphnia magna 7700 - 11200 mg/l, 48 hours
Fish:	LC50 Fathead minnow (Pimephales promelas) > 100.1 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and Degradability

No data is available on the degradability of this product.

Bioaccumulative Potential

No data available

Mobility in soil

No data available

Partition coefficient n-octanol / water (log Kow)

2-Butoxyethanol	0.83
Butane	2.89
Ethyl Alcohol	-0.31
Propane	2.36

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.



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Section 13 - DISPOSAL CONSIDERATIONS

Disposal instructions

Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

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 (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

Section 14 - TRANSPORT INFORMATION

DOT

UN number UN1950

UN proper shipping name Aerosols

Transport hazard class(es)

Class 2.2

Subsidiary risk -

Label(s) 2.2

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Packaging exceptions 306

Packaging non bulk None

Packaging bulk None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number UN1950

UN proper shipping name Aerosols, non-flammable

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Transport hazard class(es)

Class	2.2
Subsidiary risk	-
Label(s)	2.2

Packing group Not applicable.

Environmental hazards No.

ERG Code 2L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



Section 15 - REGULATORY INFORMATION

US federal regulations

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

All components are on the U.S. EPA TSCA Inventory List.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)



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Hazard categories Immediate Hazard - No
 Delayed Hazard - No
 Fire Hazard - No
 Pressure Hazard - Yes
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)
Not regulated.

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)
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
2-Butoxyethanol (CAS 111-76-2)
Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)

US. New Jersey Worker and Community Right-to-Know Act
2-Butoxyethanol (CAS 111-76-2)
Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law
2-Butoxyethanol (CAS 111-76-2)
Butane (CAS 106-97-8)
Ethyl Alcohol (CAS 64-17-5)
Propane (CAS 74-98-6)

US. Rhode Island RTK
Butane (CAS 106-97-8)
Propane (CAS 74-98-6)



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US. 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.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	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)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
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).

Section 16 - OTHER INFORMATION

Summary of Changes

Revision Date: June 1, 2018

Revision Note: General Update

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace;



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MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

The information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, CCWI Company must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent, since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.