



# Zip Foam™ (Aerosol)

ZC-01

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Revision date: 7/13/2021 Supersedes: 5/26/2015

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Trade name : Zip Foam™ (Aerosol)  
Product code : ZC-01

#### 1.2. Recommended use and restrictions on use

Recommended use : Coil cleaner

#### 1.3. Supplier

##### Distributor

Hydro-Balance Corporation  
Lewisville, TX - USA  
T 972-394-9422, 800-527-5166 - F 972-394-6755  
[Info@HydroBalance.com](mailto:Info@HydroBalance.com) - [www.HydroBalance.com](http://www.HydroBalance.com)

##### Manufacturer

North American Research Corporation  
519 Huffines Blvd., Lewisville, TX 75056  
P.O. Box 1318, Lewisville, TX 75067  
- USA  
T 972-492-1800, 800-527-7520 - F 972-394-6755  
[Info@narcochem.com](mailto:Info@narcochem.com) - [www.narcochem.com](http://www.narcochem.com)

#### 1.4. Emergency telephone number

Emergency number : For Chemical Emergency Call Infotrac 24hr/day 7days/week  
Within USA and Canada: 1-800-535-5053  
Outside USA and Canada: 1-352-323-3500

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Gases under pressure Compressed gas	H280	Contains gas under pressure; may explode if heated
Corrosive to metals Category 1	H290	May be corrosive to metals
Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H280 - Contains gas under pressure; may explode if heated  
H290 - May be corrosive to metals  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage

Precautionary statements (GHS US) :

P234 - Keep only in original container.  
P260 - Do not breathe mist, spray, vapors.  
P264 - Wash hands, face thoroughly after handling.  
P280 - Wear protective gloves, eye protection, face protection, protective clothing.

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER, a doctor.  
P363 - Wash contaminated clothing before reuse.  
P390 - Absorb spillage to prevent material-damage.  
P405 - Store locked up.  
P410+P403 - Protect from sunlight. Store in a well-ventilated place.  
P501 - Dispose of contents/container in accordance with local, regional, national and international regulations

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Potassium hydroxide	CAS-No.: 1310-58-3	3 – 5
Sodium hydroxide	CAS-No.: 1310-73-2	3 – 5
butane (Propellant gas (aerosol))	CAS-No.: 106-97-8	1 – 5
propane (Propellant gas (aerosol))	CAS-No.: 74-98-6	1 – 5

If the specific chemical identity and/or exact percentage of an ingredient is not specified, the information has been withheld as a trade secret.

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

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.  
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.  
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.  
Symptoms/effects after eye contact : Serious damage to eyes.

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/effects after ingestion : Burns.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

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

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

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

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe vapors, mist, spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapors, spray, mist. Wear personal protective equipment. For commercial and industrial use only by professionals trained in the field of HVACR.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Store in a well-ventilated place. Store in original container or corrosive resistant and/or lined container. Store locked up. Keep cool. Tip: For storage on service truck, place container inside of plastic pail and immobilize pail.

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Incompatible products : Oxidizing agent. Strong acids. chlorinated solvents.  
Incompatible materials : On contact with some metals, such as aluminum, tin, or zinc, corrosion may occur and generate highly flammable hydrogen gas.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Zip Foam™ (Aerosol)

No additional information available

##### Potassium hydroxide (1310-58-3)

###### USA - ACGIH - Occupational Exposure Limits

Local name	Potassium hydroxide
ACGIH OEL Ceiling	2 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2021

##### Sodium hydroxide (1310-73-2)

###### USA - ACGIH - Occupational Exposure Limits

Local name	Sodium hydroxide
ACGIH OEL Ceiling	2 mg/m <sup>3</sup>
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2021

###### USA - OSHA - Occupational Exposure Limits

Local name	Sodium hydroxide
OSHA PEL (TWA) [1]	2 mg/m <sup>3</sup>
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

##### butane (106-97-8)

###### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL STEL [ppm]	1000 ppm
----------------------	----------

##### propane (74-98-6)

###### USA - ACGIH - Occupational Exposure Limits

Local name	Propane
Remark (ACGIH)	TLV® Basis: Simple Asphyxiant
Regulatory reference	ACGIH 2021

###### USA - OSHA - Occupational Exposure Limits

Local name	Propane
OSHA PEL (TWA) [1]	1800 mg/m <sup>3</sup>
OSHA PEL (TWA) [2]	1000 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 8.2. Appropriate engineering controls

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

### 8.3. Individual protection measures/Personal protective equipment

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

#### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Appearance : Colorless to pale yellow liquid.  
Color : No data available  
Odor : Mild odor  
Odor threshold : No data available  
pH : 13 – 14  
Melting point : Not applicable  
Freezing point : No data available  
Boiling point : ≈ 100 °C  
Flash point : Not combustible.  
Relative evaporation rate (butyl acetate=1) : No data available  
Flammability (solid, gas) : Not applicable.  
Vapor pressure : No data available  
Relative vapor density at 20 °C : No data available  
Relative density : 1.1  
Solubility : soluble in water.  
Partition coefficient n-octanol/water (Log Pow) : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available  
Explosion limits : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available

### 9.2. Other information

Gas group : Compressed gas

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

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

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

On contact with some metals, such as aluminum, tin, or zinc, corrosion may occur and generate highly flammable hydrogen gas. Oxidizing agent. Strong acids. chlorinated solvents.

#### 10.6. Hazardous decomposition products

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

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### Potassium hydroxide (1310-58-3)

LD50 oral rat	333 mg/kg (Equivalent or similar to OECD 425, Rat, Male, Experimental value, Oral)
ATE US (oral)	333 mg/kg body weight

#### propane (74-98-6)

LC50 Inhalation - Rat [ppm]	> 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases))
-----------------------------	---

Skin corrosion/irritation : Causes severe skin burns.  
pH: 13 – 14

Serious eye damage/irritation : Causes serious eye damage.  
pH: 13 – 14

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Before neutralization, the product may represent a danger to aquatic organisms.

##### Potassium hydroxide (1310-58-3)

LC50 - Fish [1]	80 mg/l (96 h, Gambusia affinis, Static system, Fresh water, Experimental value)
-----------------	--

##### Sodium hydroxide (1310-73-2)

EC50 - Crustacea [1]	40.4 mg/l (48 h, Ceriodaphnia sp., Experimental value, Locomotor effect)
----------------------	--

##### butane (106-97-8)

LC50 - Fish [1]	24.11 mg/l (ECOSAR, 96 h, Pisces, Fresh water, QSAR)
-----------------	--

##### propane (74-98-6)

LC50 - Fish [1]	49.9 mg/l (96 h, Pisces, Fresh water, QSAR, Estimated value)
-----------------	--

#### 12.2. Persistence and degradability

##### Potassium hydroxide (1310-58-3)

Persistence and degradability	Biodegradability: not applicable.
-------------------------------	-----------------------------------

Chemical oxygen demand (COD)	Not applicable
------------------------------	----------------

ThOD	Not applicable
------	----------------

BOD (% of ThOD)	Not applicable
-----------------	----------------

##### Sodium hydroxide (1310-73-2)

Persistence and degradability	Biodegradability: not applicable.
-------------------------------	-----------------------------------

Chemical oxygen demand (COD)	Not applicable (inorganic)
------------------------------	----------------------------

ThOD	Not applicable (inorganic)
------	----------------------------

##### butane (106-97-8)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

##### propane (74-98-6)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

#### 12.3. Bioaccumulative potential

##### Potassium hydroxide (1310-58-3)

Bioaccumulative potential	Bioaccumulation: not applicable.
---------------------------	----------------------------------

##### Sodium hydroxide (1310-73-2)

Bioaccumulative potential	Not bioaccumulative.
---------------------------	----------------------

##### butane (106-97-8)

Partition coefficient n-octanol/water (Log Pow)	2.8 (Experimental value, 20 °C)
---	---------------------------------

Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
---------------------------	--

##### propane (74-98-6)

Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (Experimental value, 20 °C)
---	--

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### propane (74-98-6)

Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
---------------------------	--

### 12.4. Mobility in soil

### Sodium hydroxide (1310-73-2)

Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

### butane (106-97-8)

Surface tension	No data available in the literature
Ecology - soil	Not applicable (gas).

### propane (74-98-6)

Surface tension	No data available in the literature
Ecology - soil	Not applicable (gas).

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### 14.1. UN number

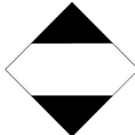
DOT NA No : UN1950

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : UN1950 Aerosols, 2.2 (8), Limited Quantity

### 14.3. Transport hazard class(es)

**DOT**  
Transport hazard class(es) (DOT) : LTD QTY  
Hazard labels (DOT) : LTD QTY



### 14.4. Packing group

Packing group (DOT) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.



# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 14.6. Special precautions for user

**DOT**  
UN-No.(DOT) : UN1950  
DOT Special Provisions (49 CFR 172.102) : A34 - Aerosols containing a corrosive liquid in Packing Group II charged with a gas are not permitted for transportation by aircraft.

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

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed as Active, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Potassium hydroxide	CAS-No. 1310-58-3	3 – 5%
Sodium hydroxide	CAS-No. 1310-73-2	3 – 5%
butane	CAS-No. 106-97-8	1 – 5%
propane	CAS-No. 74-98-6	1 – 5%

#### Potassium hydroxide (1310-58-3)

CERCLA RQ	1000 lb
-----------	---------

#### Sodium hydroxide (1310-73-2)

CERCLA RQ	1000 lb
-----------	---------

### 15.2. International regulations

#### CANADA

#### Potassium hydroxide (1310-58-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### butane (106-97-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### propane (74-98-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### EU-Regulations

No additional information available

# Zip Foam™ (Aerosol)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### National regulations

#### butane (106-97-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### propane (74-98-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

Component	State or local regulations
Potassium hydroxide(1310-58-3)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Sodium hydroxide(1310-73-2)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
butane(106-97-8)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
propane(74-98-6)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 07/13/2021

Full text of H-phrases	
H280	Contains gas under pressure; may explode if heated
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

NOTICE: This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to accuracy of the information contained within. Actual conditions of use and handling are beyond seller's control. User is responsible to evaluate all available information when using product for any particular use and to comply with all federal, state, provincial, and local laws and regulations.