

### SECTION 1: Product and company identification

Product name : Foaming Coil Cleaner  
Use of the substance/mixture : Aerosol Cleaner  
Product code : 8021  
Company : Total Solutions  
P.O. Box 240014  
Milwaukee, WI 53224 - USA  
T (414) 354-6417  
Emergency number : Chemtec: (800) 424-9300

### SECTION 2: Hazards identification

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

##### Classification (GHS-US)

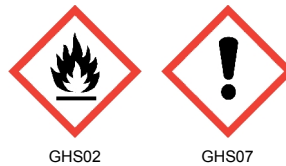
Flam. Aerosol 1 H222  
Eye Irrit. 2A H319  
Skin Sens. 1 H317

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Extremely flammable aerosol  
May cause an allergic skin reaction  
Causes serious eye irritation

Precautionary statements (GHS-US) :

Keep away from heat, hot surfaces, Do not smoke, open flames, sparks. - No smoking  
Do not spray on an open flame or other ignition source  
Pressurized container: Do not pierce or burn, even after use  
Avoid breathing gas  
Wash thoroughly after handling  
Contaminated work clothing must not be allowed out of the workplace  
Wear protective gloves, eye protection, face protection  
If on skin: Wash with plenty of water  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Specific treatment (see First aid measures on this label)  
If skin irritation or rash occurs: Get medical advice/attention  
If eye irritation persists: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse  
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F  
Dispose of contents/container to comply with local/regional/national/international regulations  
IF INHALED: Move to fresh air, If symptoms persist, call a physician  
If swallowed: Immediately call a POISON CENTER, a doctor, Do NOT induce vomiting

#### 2.3. Other hazards

No additional information available

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

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

Full text of H-phrases: see section 16

#### 3.2. Mixture

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Name	Product identifier	%	Classification (GHS-US)
butane	(CAS No) 106-97-8	2.5 - 10	Flam. Gas 1, H220 Compressed gas, H280
Glycol Ether EB	(CAS No) 111-76-2	1 - 2.5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT RE 2, H373 Asp. Tox. 1, H304
propane	(CAS No) 74-98-6	1 - 2.5	Flam. Gas 1, H220 Compressed gas, H280
Diethylene Glycol Monoethyl Ether	(CAS No) 111-90-0	1 - 2.5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
tetrasodium ethylenediaminetetracetate	(CAS No) 64-02-8	1 - 2.5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
(+)-limonene	(CAS No) 5989-27-5	0.1 - 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
sodium nitrite	(CAS No) 7632-00-0	0.1 - 1	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301 Eye Irrit. 2A, H319 Carc. 1B, H350

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after 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.
- First-aid measures after skin contact : Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. For minor skin contact, avoid spreading material on unaffected skin.
- First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Call a physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes serious eye irritation. May cause an allergic skin reaction. Extremely flammable.
- Symptoms/injuries after inhalation : Irritation of the nasal mucous membranes.
- Symptoms/injuries after skin contact : May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Causes serious eye irritation.
- Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Water.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable aerosol. Under fire conditions closed containers may rupture or explode.
- Explosion hazard : Contents under pressure. Pressurized container: may burst if heated.
- Reactivity : Upon combustion: CO and CO2 are formed.

#### 5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Move containers away from the fire area if this can be done without risk. Use water spray or fog for cooling exposed containers. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

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

- General measures : Stay upwind/keep distance from source. Evacuate unnecessary personnel. Vapors may travel long distances along ground before igniting/flashing back to vapor source.

##### 6.1.1. For non-emergency personnel

- Protective equipment : Do not enter without an appropriate protective equipment. Advise local authorities if considered necessary. DO NOT touch spilled material. Ventilate the area thoroughly, especially low lying areas (basements, work pits etc.).

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Emergency procedures : Do not breathe gas. Evacuate unnecessary personnel. Keep upwind. Ventilate spillage area.

### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Advise local authorities if considered necessary. Stop leak if safe to do so. Do not contaminate water with the product or its container. Prevent entry to sewers and public waters. Do not allow to enter drains or water courses.

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

For containment : Eliminate every possible source of ignition. Prevent the product from entering drains or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Form with air vapors (heavier than air) who stay on the floor. Stop leak if safe to do so. Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid. Isolate area until gas has dispersed. Collect spillage.  
Methods for cleaning up : Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Dispose as hazardous waste.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Do not use if spray button is missing or defective. Pressurized container: Do not pierce or burn, even after use. Keep away from heat, sparks and flame.  
Precautions for safe handling : Avoid prolonged and repeated contact with skin. Intentional misuse by deliberately concentrating and inhaling may be harmful or fatal. Do not breathe gas/vapor/aerosol. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not spray on a naked flame or any incandescent material. Do not smoke while handling product. Ground/bond container and receiving equipment. Do not re-use empty containers. Avoid contact with skin and eyes. Use only outdoors or in a well-ventilated area. Observe normal hygiene standards. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Do not discharge the waste into the drain.  
Hygiene measures : Wash thoroughly after handling.

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

Technical measures : Pressurized container. Do not puncture, incinerate or crush. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep cool. Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/ 122 °F. Refrigerate.  
Storage temperature : < 49 °C  
Storage area : Aerosol 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Glycol Ether EB (111-76-2)</b>		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr
<b>propane (74-98-6)</b>		
ACGIH	ACGIH TWA (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
<b>butane (106-97-8)</b>		
ACGIH	ACGIH TWA (ppm)	1000 ppm
ACGIH	ACGIH STEL (ppm)	1000 ppm

### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

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Personal protective equipment

: Gloves. Protective goggles. Protective clothing. Use appropriate personal protective equipment when risk assessment indicates this is necessary.



### SECTION 9: Physical and chemical properties

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

Physical state	: Gas
Appearance	: Aerosol. Clear, colorless liquid.
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 212 °F Estimated
Flash point	: -156 °F Propellant estimated
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 0.969 g/ml
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Upon combustion: CO and CO<sub>2</sub> are formed.

#### 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

Exposure to air.

#### 10.5. Incompatible materials

oxygen. Do not mix with other chemicals. None known.

#### 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 : Not classified

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<b>Glycol Ether EB (111-76-2)</b>	
LD50 oral rat	1300 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE CLP (oral)	1300.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (dust, mist)	1.500 mg/l/4h

<b>(+)-limonene (5989-27-5)</b>	
LD50 oral rat	4400 mg/kg body weight (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Literature study; > 2000 mg/kg bodyweight; Rat; Read-across)
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Weight of evidence; Equivalent or similar to OECD 402)
ATE CLP (oral)	4400.000 mg/kg body weight

<b>tetrasodium ethylenediaminetetracetate (64-02-8)</b>	
LD50 oral rat	> 2000 mg/kg (Rat)
ATE CLP (oral)	500.000 mg/kg body weight

<b>Diethylene Glycol Monoethyl Ether (111-90-0)</b>	
LD50 oral rat	1920 mg/kg

<b>sodium nitrite (7632-00-0)</b>	
ATE CLP (oral)	100.000 mg/kg body weight

Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.

<b>Glycol Ether EB (111-76-2)</b>	
IARC group	3 - Not Classifiable

<b>(+)-limonene (5989-27-5)</b>	
IARC group	3 - Not Classifiable

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified.

<b>Glycol Ether EB (111-76-2)</b>	
LOAEL (oral,rat,90 days)	69 mg/kg bodyweight/day Target organ: liver
NOAEL (dermal,rat/rabbit,90 days)	150 mg/kg bodyweight/day

Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Irritation of the nasal mucous membranes.
Symptoms/injuries after skin contact	: May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
Likely routes of exposure	: Skin and eyes contact.;Inhalation

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Glycol Ether EB (111-76-2)</b>	
LC50 fish 1	1474 mg/l Oncorhynchus mykiss
EC50 Daphnia 1	100 mg/l Water flea
ErC50 (algae)	1840 mg/l Pseudokirchneriella subcapitata
NOEC chronic fish	> 100 mg/l
NOEC chronic crustacea	100 mg/l daphnid

<b>(+)-limonene (5989-27-5)</b>	
LC50 fish 1	720 µg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 1	0.36 mg/l (48 h; Daphnia magna; GLP)
LC50 fish 2	702 µg/l (96 h; Pimephales promelas)

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(+)-limonene (5989-27-5)	
Threshold limit algae 1	150 mg/l (72 h; Desmodesmus subspicatus; GLP)
Threshold limit algae 2	2.62 mg/l (72 h; Desmodesmus subspicatus)
tetrasodium ethylenediaminetetracetate (64-02-8)	
LC50 fish 1	121 mg/l (96 h; Lepomis macrochirus; Soft water)
EC50 Daphnia 1	625 mg/l (24 h; Daphnia magna)
LC50 fish 2	374 - 792 mg/l (96 h; Lepomis macrochirus; pH > 7)
Threshold limit algae 1	> 100 mg/l (72 h; Scenedesmus subspicatus; Growth)

### 12.2. Persistence and degradability

(+)-limonene (5989-27-5)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Adsorbs into the soil.
ThOD	3.29 g O <sub>2</sub> /g substance
tetrasodium ethylenediaminetetracetate (64-02-8)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	< 0.002 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.54 - 0.58 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

(+)-limonene (5989-27-5)	
BCF fish 1	864.8 - 1022 (Pisces; Fresh weight)
Log Pow	4.38 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 37 °C)
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).
tetrasodium ethylenediaminetetracetate (64-02-8)	
Log Pow	-2.6
Bioaccumulative potential	Bioaccumulation: not applicable.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Contents under pressure. Do not puncture, incinerate or crush.
Waste disposal recommendations	: Dispose of contents/container to comply with local/regional/national regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

Transport document description	: UN1950 Aerosols (flammable, (each not exceeding 1 L capacity)), 2.1
UN-No.(DOT)	: UN1950
Proper Shipping Name (DOT)	: Aerosols flammable, (each not exceeding 1 L capacity)
Transport hazard class(es) (DOT)	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115
Hazard labels (DOT)	: 2.1 - Flammable gas



DOT Packaging Non Bulk (49 CFR 173.xxx)	: None
DOT Packaging Bulk (49 CFR 173.xxx)	: None
DOT Special Provisions (49 CFR 172.102)	: N82
DOT Packaging Exceptions (49 CFR 173.xxx)	: 306
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg
DOT Vessel Stowage Location	: A

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DOT Vessel Stowage Other : 25 - Shade from radiant heat, 87 - Stow "separated from" Class 1 (explosives) except Division 14, 126 - Segregation same as for Class 9, miscellaneous hazardous materials

### Additional information

Other information : This product may be eligible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.306.

### ADR

No additional information available

### Transport by sea

UN-No. (IMDG) : UN1950  
 Proper Shipping Name (IMDG) : AEROSOLS  
 Class (IMDG) : 2.1 - Flammable gases

### Air transport

UN-No. (IATA) : UN1950  
 Proper Shipping Name (IATA) : Aerosols, flammable  
 Class (IATA) : 2.1 - Gases : Flammable

## SECTION 15: Regulatory information

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

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

sodium nitrite	CAS No 7632-00-0	0.1 - 1
Glycol Ether EB	CAS No 111-76-2	1 - 2.5

propane (74-98-6)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	
butane (106-97-8)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	
sodium nitrite (7632-00-0)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity.

## SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H-phrases:

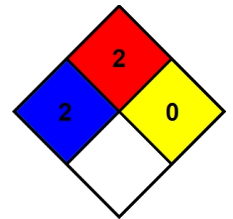
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Compressed gas	Gases under pressure Compressed gas
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Aerosol 1	Flammable aerosol Category 1
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Ox. Sol. 3	Oxidizing solids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2

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Skin Sens. 1	Skin sensitization Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
H220	Extremely flammable gas
H222	Extremely flammable aerosol
H226	Flammable liquid and vapor
H227	Combustible liquid
H272	May intensify fire; oxidizer
H280	Contains gas under pressure; may explode if heated
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H350	May cause cancer
H373	May cause damage to organs through prolonged or repeated exposure

- NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
- NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.*