



# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Chemical Guys TVDSPRAY103 Cling On High Gloss Tire Foam

**Other means of identification**

**SDS number:** RE1000036076

**Recommended restrictions**

**Product use:** Cleaner **Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information**

**Manufacturer**

Company Name: Chemical Guys  
Address: 14108 S. Western Ave  
Gardena, CA 90249  
Telephone: Fax: 866-822-3670

**Emergency telephone number:** 1-866-836-8855

## 2. Hazard(s) identification

**Hazard Classification**

**Physical Hazards**

Flammable aerosol

Category 1

**Label Elements**

**Hazard Symbol:**



**Signal Word: Hazard**

Danger

**Statement:**

Extremely flammable aerosol.

**Precautionary Statements**

**Prevention:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.



**Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**Hazard(s) not otherwise classified (HNOC):** None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Butane	106-97-8	1 - <5%
Propane	74-98-6	1 - <5%
Sodium nitrite, Nitrous acid, sodium salt (1:1)	7632-00-0	0.1 - <1%
Morpholine	110-91-8	0.1 - <1%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

**Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

**Inhalation: Skin** Move to fresh air.

**Contact:** Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

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

**Symptoms:** No data available.

**Hazards:** No data available.

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

**Treatment:** No data available.

### 5. Fire-fighting measures

**General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

#### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.



**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 travel considerable distance to a source of ignition and flash back.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:**

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.

**Methods and material for containment and cleaning up:**

Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

**Notification Procedures:**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

**Environmental Precautions:**

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

**7. Handling and storage**

**Precautions for safe handling:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.

**Conditions for safe storage, including any incompatibilities:**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 1

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Butane	REL	800 ppm 1,900 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	800 ppm 1,900 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (03 2018)
	TWA	800 ppm 1,900 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000)(1989)
	AN ESL	3,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	7,100 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)



	TWA PEL	800 ppm	1,900 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	ST ESL		66,000 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		28,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Propane	REL	1,000 ppm	1,800 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm	1,800 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA PEL	1,000 ppm	1,800 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA	1,000 ppm	1,800 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	TWA	1,000 ppm	1,800 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Morpholine	REL	20 ppm	70 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	ST ESL		36 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	PEL	20 ppm	70 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA PEL	20 ppm	70 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	STEL	30 ppm	105 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	AN ESL		11 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		10 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	20 ppm	70 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	30 ppm	105 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	30 ppm	105 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	30 ppm	105 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	AN ESL		40 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	20 ppm	70 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Benzene, dimethyl-	STEL	150 ppm	655 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	150 ppm	655 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA PEL	100 ppm	435 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA	100 ppm	435 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	Ceiling	300 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA	100 ppm	435 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	150 ppm	655 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	REL	100 ppm	435 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	ST ESL		510 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	PEL	100 ppm	435 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm		US. ACGIH Threshold Limit Values (2008)
	AN ESL		41 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		2,200 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	STEL	150 ppm	655 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	AN ESL		180 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Ethanol, 2-methoxy-	TWA	0.1 ppm		US. ACGIH Threshold Limit Values (2008)
	REL	0.1 ppm	0.3 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards



			(2005)
	TWA	25 ppm 80 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table 71A (06 2008)
	TWA	25 ppm 80 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000)(1989)
	TWA PEL	5 ppm 16 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	ST ESL	50 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	16 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	PEL	25 ppm 80 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	AN ESL	5 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL	160 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
1,2-Ethanediamine	TWA	10 ppm	US. ACGIH Threshold Limit Values (2008)
	TWA PEL	10 ppm 25 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	PEL	10 ppm 25 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	10 ppm 25 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000)(1989)
	AN ESL	25 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL	100 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	10 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	REL	10 ppm 25 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	ST ESL	250 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	10 ppm 25 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table 71A (06 2008)
Morpholine, 4-ethyl-	REL	5 ppm 23 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	5 ppm 23 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000)(1989)
	TWA	5 ppm 23 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table 71A (06 2008)
	TWA PEL	5 ppm 23 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	PEL	20 ppm 94 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	AN ESL	24 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	5 ppm	US. ACGIH Threshold Limit Values (2008)
	AN ESL	5.1 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL	51 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL	240 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Sodium hydroxide (NaOH)	Ceiling	2 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2008)
	Ceiling	2 mg/m <sup>3</sup>	US. OSHA Table Z-1-A (29 CFR 1910.1000)(1989)
	Ceil_Time	2 mg/m <sup>3</sup>	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	2 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	Ceiling	2 mg/m <sup>3</sup>	US. Tennessee. OELs. Occupational Exposure Limits, Table 71A (06 2008)
	Ceiling	2 mg/m <sup>3</sup>	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
Sodium hydroxide (NaOH) - Particulate.	AN ESL	2 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL	20 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Proprietary Benzene	TWA	20 ppm	US. ACGIH Threshold Limit Values
	REL	0.1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000)(1989)



	Ceiling	25 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA A LV	0.5 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	AN ESL	1.4 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	0.5 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	25 ppm	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	5 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	STEL	5 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA PEL	1 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	ST ESL	170 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	10 ppm	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL	53 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	STEL	2.5 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	OSHA_ACT	0.5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	TWA	10 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	50 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	AN ESL	4.5 µg/m <sup>3</sup>	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	Ceiling	50 ppm	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)

### Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEL (03 2013)
Ethanol, 2-methoxy- (2-Methoxyacetic acid: Sampling time: End of shift at end of work week.)	1 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)

### Appropriate Engineering Controls

No data available.

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

#### General information:

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

#### Eye/face protection:

Wear goggles/face shield.

#### Skin Protection

#### Hand Protection:

No data available.



<b>Other:</b>	No data available.
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
<b>Hygiene measures:</b>	When using do not smoke. Observe good industrial hygiene practices.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	Spray Aerosol No data
<b>Color:</b>	available. No data
<b>Odor:</b>	available. No data
<b>Odor threshold:</b>	available. No data
<b>pH:</b>	available. No data
<b>Melting point/freezing point:</b>	available. No data
<b>Initial boiling point and boiling range:</b>	available.
<b>Flash Point:</b>	- 104.44 °C
<b>Evaporation rate: Flammability (solid, gas):</b>	No data available. No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%): Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	3,447.3786 - 4,136.8544 hPa (20 °C) 744.6276 - 882.5216 hPa (50 °C)
<b>Vapor density:</b>	No data available. No
<b>Density:</b>	data available. No data
<b>Relative density:</b>	available.
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	No data available. No
<b>Solubility (other):</b>	data available. No data
<b>Partition coefficient (n-octanol/water):</b>	available.
<b>Auto-ignition temperature: Decomposition temperature: Viscosity:</b>	No data available. No data available. No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability: Possibility of hazardous reactions:</b>	Material is stable under normal conditions. No data available.



**Conditions to avoid: Incompatible**      **Avoid heat or contamination. No**  
**Materials: Hazardous**                      **data available.**  
**Decomposition**                                **No data available.**  
**Products:**

## **11. Toxicological information**

### **Information on likely routes of exposure**

**Inhalation:**                                      **No data available.**  
**Skin Contact: Eye**                              **No data available. No**  
**contact:**                                        **data available.**  
**Ingestion:**                                      **No data available.**

### **Symptoms related to the physical, chemical and toxicological characteristics**

**Inhalation: Skin**                                **No data available. No**  
**Contact: Eye**                                    **data available. No**  
**contact:**                                        **data available. No**  
**Ingestion:**                                      **data available.**

### **Information on toxicological effects**

#### **Acute toxicity (list all possible routes of exposure)**

**Oral**  
**Product:**                                        **ATEmix: 53,823.55 mg/kg**

**Dermal**  
**Product:**                                        **ATEmix: 150,684.63 mg/kg**

**Inhalation**  
**Product:**                                        **Not classified for acute toxicity based on available data.**

**Specified substance(s):**  
**Butane**                                            **LC 50 (Mouse): 1,237 mg/l**  
**Propane**                                           **LC 50 (Mouse): 1,237 mg/l**  
**Sodium nitrite, Nitrous**                      **LC 0 (Rat): 0.0951 mg/l**  
**acid, sodium salt (1:1)**  
**Morpholine**                                      **LC 0 (Rat): 24 mg/l**  
                                                            **LC 50: > 24 mg/l**  
                                                            **LC 50: > 5 mg/l**

**Repeated dose toxicity**  
**Product:**                                        **No data available.**

**Specified substance(s):**  
**Butane**                                            **NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental**  
**result, Key study**





Propane  
LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study  
NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study  
LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study

Sodium nitrite, Nitrous acid, sodium salt (1:1)  
NOAEL (Rat(Male), Oral, 2 yr): 10 mg/kg Oral Experimental result, Supporting study  
LOAEL (Rat(Male), Oral, 14 Weeks): 115 mg/kg Oral Experimental result, Weight of Evidence study  
NOAEL (Rat(Female, Male), Inhalation): 36 ppm(m) Inhalation Experimental result, Key study  
LOAEL (Rat(Female), Oral, 56 d): 500 mg/kg Oral Experimental result, Key study

Morpholine

No data available.

**Skin Corrosion/Irritation Product:**

in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study

**Specified substance(s):**  
Sodium nitrite, Nitrous acid, sodium salt (1:1)

in vivo (Rabbit): Corrosive Experimental result, Key study

Morpholine

**Serious Eye Damage/Eye Irritation Product:**

No data available.

**Respiratory or Skin Sensitization Product:**

No data available.

**Specified substance(s):**  
Morpholine

Skin sensitization:, in vivo (Guinea pig): Non sensitising

**Carcinogenicity Product:**

No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:**

No data available.

**In vivo**

**Product:**

No data available.

**Reproductive toxicity Product:**

No data available.



### Specific Target Organ Toxicity - Single Exposure

**Product:** No data available.

### Specific Target Organ Toxicity - Repeated Exposure

**Product:** No data available.

### Aspiration Hazard

**Product:** No data available. No

**Other effects:** data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Specified substance(s):

Butane LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study LC 50 (Various, 96 h):

Propane 147.54 mg/l QSAR QSAR, Key study

Sodium nitrite, Nitrous acid, sodium salt (1:1) LC 50 (Oncorhynchus mykiss, 96 h): 0.54 - 26.3 mg/l Experimental result, Key study

Morpholine LC 50 (Oncorhynchus mykiss, 96 h): 180 mg/l Experimental result, Key study

No data available.

##### Aquatic Invertebrates

##### Product:

LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study

##### Specified substance(s):

Butane EC 50 (Daphnia magna, 48 h): 15.4 mg/l Experimental result, Key study

Sodium nitrite, Nitrous acid, sodium salt (1:1) EC 50 (Daphnia magna, 48 h): 45 mg/l Experimental result, Key study

Morpholine

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Specified substance(s):

Sodium nitrite, Nitrous acid, sodium salt (1:1) NOAEL (Cyprinus carpio): 1.05 mg/l Experimental result, Key study

##### Aquatic Invertebrates

##### Product:

No data available.

##### Specified substance(s):

Sodium nitrite, Nitrous NOAEL (Penaeus monodon): 2 mg/l Experimental result, Key study



acid, sodium salt (1:1) EC 50 (Panaeus monodon): 114.9 mg/l Experimental result, Key study LC 50 (Panaeus monodon): > 95.6 mg/l Experimental result, Key study

Morpholine EC 50 (Daphnia magna): 12 mg/l Experimental result, Key study NOAEL (Daphnia magna): 5 mg/l Experimental result, Key study

**Toxicity to Aquatic Plants**  
**Product:**

No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:**

No data available.

**Specified substance(s):**

Butane 100 % (385.5 h) Detected in water. Experimental result, Key study  
50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study

Propane 100 % (385.5 h) Detected in water. Experimental result, Key study  
50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study

Morpholine > 90 % (24 h) Sediment Experimental result, Key study 80 - 94 % (24 h)  
Sediment Experimental result, Key study 34.1 % Detected in water.  
Experimental result, Key study  
> 99 % (24 h) Sediment Experimental result, Key study

**BOD/COD Ratio**

**Product:**

No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:**

No data available.

**Specified substance(s):**

Morpholine Cyprinus carpio, Bioconcentration Factor (BCF): < 2.8 Aquatic sediment Experimental result,  
Key study

**Partition Coefficient n-octanol / water (log Kow)**

**Product:**

No data available.

**Mobility in soil:**

No data available.

**Known or predicted distribution to environmental compartments**

Butane No data available. No

Propane data available. No data

Sodium nitrite, Nitrous acid, sodium available.

salt (1:1) Morpholine  
No data available.

**Other adverse effects:**

No data available.

**13. Disposal considerations**

**Disposal instructions:**

Wash before disposal. Dispose to controlled facilities. No data

**Contaminated Packaging:** SDS\_US

available.



## 14. Transport information

### DOT

UN Number:	UN 1950
UN Proper Shipping Name: Transport Hazard Class(es)	Aerosols, flammable
Class:	2.1
Label(s):	-
Packing Group:	II
Marine Pollutant:	No
Environmental Hazards: Marine Pollutant	No
Special precautions for user:	Not regulated.

### IMDG

UN Number:	UN 1950
UN Proper Shipping Name: Transport Hazard Class(es)	Aerosols, flammable
Class:	2
Label(s):	-
EmS No.:	-
Packing Group:	-
Environmental Hazards: Marine Pollutant	No
Special precautions for user:	Not regulated.

### IATA

UN Number:	UN 1950
Proper Shipping Name: Transport Hazard Class(es)	Aerosols, flammable
Class:	2.1
Label(s):	-
Packing Group:	-
Environmental Hazards: Marine Pollutant	No
Special precautions for user:	Not regulated.

## 15. Regulatory information

### US Federal Regulations

**Restrictions on use:** Not known.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Chemical Identity

OSHA hazard(s)



Benzene  
respiratory tract irritation  
Central nervous system Blood  
Skin  
Flammability  
Cancer  
Aspiration  
Eye

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

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butane	
Propane	lbs. 100
Sodium nitrite, Nitrous acid, sodium salt (1:1)	lbs. 100
Morpholine	lbs. 100
Benzene, dimethyl- 1,2-	
Ethanediamine Morpholine,	lbs. 100
4-ethyl- Sodium hydroxide (Na(OH))	lbs. 100
	lbs. 5000
Benzene	lbs. 100
	lbs. 1000
	lbs. 10

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Fire Hazard Flammable aerosol

**SARA 302 Extremely Hazardous Substance**

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Ethanediamine	lbs. 5000	lbs. 10000

**SARA 304 Emergency Release Notification**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butane	
Propane	lbs. 100
Sodium nitrite, Nitrous acid, sodium salt (1:1)	lbs. 100
Morpholine	lbs. 100
Benzene, dimethyl- Ethanol, 2-methoxy-	lbs. 100
1,2-Ethanediamine Morpholine, 4-ethyl-	lbs. 100
	lbs. 5000
	lbs. 100
Sodium hydroxide (Na(OH))	lbs. 1000
Benzene	lbs. 10

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
1,2-Ethanediamine Butane	lbs
Propane	10000 lbs
Sodium nitrite, Nitrous acid, sodium salt (1:1)	10000 lbs
Morpholine	10000 lbs
	10000 lbs



Benzene, dimethyl-	10000 lbs
Ethanol, 2-methoxy-	10000 lbs
Morpholine, 4-ethyl-	10000 lbs
Sodium hydroxide (Na(OH)) Proprietary	10000 lbs
Benzene	10000 lbs
	10000 lbs

#### **SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

#### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

##### **US State Regulations**

#### **US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Ethanol, 2-methoxy-	Developmental toxin. 03 2008 Male
Ethanol, 2-methoxy-	reproductive toxin. 03 2008
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008

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

##### **Chemical Identity**

Butane  
Propane

#### **US. Massachusetts RTK - Substance List**

##### **Chemical Identity** 1,2-

Ethanediamine

#### **US. Pennsylvania RTK - Hazardous Substances**

##### **Chemical Identity**

Butane  
Propane

#### **US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

#### **International regulations**

##### **Montreal protocol**

Not applicable

##### **Stockholm convention**

Not applicable

##### **Rotterdam convention**

Not applicable

##### **Kyoto protocol**

Not applicable



<b>Inventory Status:</b> Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	Not in compliance with the inventory.
EINECS, ELINCS or NLP:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	Not in compliance with the inventory.
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
Ontario Inventory:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.

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

<b>Issue Date:</b>	08/09/2019
<b>Revision Information: Version</b>	No data available.
<b>#:</b>	1.0
<b>Further Information: Disclaimer:</b>	No data available.

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.