

SAFETY DATA SHEET

1. Identification

Product identifier: FAST OPEN 957 SCREEN OPENER

Other means of identification

SDS number: RE1000007897

Recommended restrictions

Product use: Cleaner

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: Sprayway, Inc.
Address: 1000 INTEGRAM DR.
Pacific, MO 63069
Telephone: 1-630-628-3000
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol Category 1

Health Hazards

Acute toxicity (Dermal) Category 4
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Carcinogenicity Category 1B
Aspiration Hazard Category 1

Environmental Hazards

Acute hazards to the aquatic environment Category 3

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Extremely flammable aerosol.
Harmful in contact with skin.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.
May be fatal if swallowed and enters airways.
Harmful to aquatic life.



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. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.
- Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Wash contaminated clothing before reuse.
- Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up.
- Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Hazard(s) not otherwise classified (HNOC):** None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Benzene, trimethyl-	25551-13-7	25 - <50%
Butane	106-97-8	20 - <50%
Cyclohexanone	108-94-1	10 - <20%
Benzene, 1,2,4-trimethyl-	95-63-6	10 - <20%
Solvent naphtha (petroleum), light arom.	64742-95-6	5 - <10%
Propane	74-98-6	5 - <10%
Benzene, (1-methylethyl)-	98-82-8	1 - <5%
Benzene, dimethyl-	1330-20-7	1 - <5%
Benzene, methyl(1-methylethyl)-	25155-15-1	1 - <5%

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

4. First-aid measures

- Ingestion:** Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation:** Move to fresh air.
- Skin Contact:** Call a POISON CENTER/doctor if you feel unwell. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse.



Eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical 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: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. 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: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.



7. Handling and storage

Precautions for safe handling: Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. 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. Avoid contact with skin.

Conditions for safe storage, including any incompatibilities: Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 3

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Benzene, trimethyl-	TWA	25 ppm	US. ACGIH Threshold Limit Values (2008)
	TWA	25 ppm 125 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	25 ppm 125 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
Butane	REL	800 ppm 1,900 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (03 2018)
	TWA	800 ppm 1,900 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Cyclohexanone	TWA	20 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	50 ppm	US. ACGIH Threshold Limit Values (2008)
	REL	25 ppm 100 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	50 ppm 200 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Benzene, 1,2,4-trimethyl-	TWA	25 ppm 125 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	25 ppm 125 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	25 ppm	US. ACGIH Threshold Limit Values (2008)
Propane	REL	1,000 ppm 1,800 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm 1,800 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm 1,800 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	50 ppm 245 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Benzene, (1-methylethyl)-	TWA	50 ppm	US. ACGIH Threshold Limit Values (2008)
	PEL	50 ppm 245 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 ppm 245 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (03 2018)
Benzene, dimethyl-	STEL	150 ppm 655 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm 435 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm	US. ACGIH Threshold Limit Values (2008)
	REL	100 ppm 435 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	PEL	100 ppm 435 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm	US. ACGIH Threshold Limit Values (2008)
Benzene	STEL	150 ppm 655 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	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)
	TWA	0.5 ppm	US. ACGIH Threshold Limit Values (2008)
	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)
	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	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Benzene, ethyl-	STEL	125 ppm 545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	100 ppm 435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	100 ppm 435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	125 ppm 545 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm 435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	20 ppm	US. ACGIH Threshold Limit Values (12 2010)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Cyclohexanone (1,2-Cyclohexanediol, with hydrolysis: Sampling time: End of shift at end of work week.)	80 mg/l (Urine)	ACGIH BEL (03 2013)
Cyclohexanone (Cyclohexanol, with hydrolysis: Sampling time: End of shift.)	8 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/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)
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEL (02 2014)

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. 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.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: No data available.

Other: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.



Hygiene measures: Avoid contact with skin. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. When using do not smoke. Wash contaminated clothing before reuse.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: Spray Aerosol
Color: No data available.
Odor: No data available.
Odor threshold: No data available.
pH: No data available.
Melting point/freezing point: No data available.
Initial boiling point and boiling range: Estimated 155.6 °C
Flash Point: Estimated -104.4 °C
Evaporation rate: No data available.
Flammability (solid, gas): No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): 9.5 %(V)
Flammability limit - lower (%): 1.9 %(V)
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.

Vapor pressure: 2,757 - 4,136 hPa (20 °C)

Vapor density: No data available.
Density: No data available.
Relative density: No data available.

Solubility(ies)

Solubility in water: No data available.
Solubility (other): No data available.

Partition coefficient (n-octanol/water): No data available.

Auto-ignition temperature: Estimated 905 °C

Decomposition temperature: No data available.

Viscosity: No data available.

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Avoid heat or contamination.

Incompatible Materials: No data available.

Hazardous Decomposition Products: No data available.



11. Toxicological information

Information on likely routes of exposure

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

Symptoms related to the physical, chemical and toxicological characteristics

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

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral	
Product:	ATEmix: 2,882.2 mg/kg
Dermal	
Product:	ATEmix: 1,918.11 mg/kg
Inhalation	
Product:	ATEmix: 25.14 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

Butane	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
Cyclohexanone	NOAEL (Rat(Female, Male), Oral, 3 Months): 143 mg/kg Oral Experimental result, Key study NOAEL (Mouse, Rat(Female, Male), Oral, 2 yr): 462 mg/kg Oral Experimental result, Weight of Evidence study LOAEL (Mouse, Rat(Female, Male), Oral, 2 yr): 910 mg/kg Oral Experimental result, Weight of Evidence study NOAEL (Rat(Male), Other route of exposure (excluding dermal, oral and inhalation), 28 d): 100 mg/kg Other route of exposure (excluding dermal, oral and inhalation) Experimental result, Supporting study
Benzene, 1,2,4-trimethyl-	NOAEL (Rat(Female, Male), Oral, 90 - 91 d): 600 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study NOAEL (Rat(Female, Male), Inhalation): 1,800 mg/m3 Inhalation Experimental result, Key study
Solvent naphtha (petroleum), light arom.	NOAEL (Mouse, Rat(Female, Male), Inhalation, 107 - 113 Weeks): 1,402 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): > 20,000 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 5 - 28 d): 3,750 mg/kg Dermal Experimental result, Key study
Propane	NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation



Benzene, (1-methylethyl)-	Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Male), Oral, 28 d): > 535.8 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 125 ppm(m) Inhalation
Benzene, dimethyl-	Experimental result, Key study NOAEL (Rat(Female), Oral, 90 d): 150 mg/kg Oral Experimental result, Key study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Cyclohexanone	in vivo (Rabbit): Irritating Experimental result, Key study in vivo (Rabbit): Irritating Experimental result, Key study in vivo (Rabbit): Irritating Experimental result, Key study
Benzene, 1,2,4-trimethyl-	in vivo (Rabbit): Irritating Read-across from supporting substance (structural analogue or surrogate), Supporting study
Solvent naphtha (petroleum), light arom.	Assessment Not Classified Repeated exposure may cause skin dryness or cracking.
Benzene, (1-methylethyl)-	in vivo (Rabbit): Not irritant Experimental result, Key study
Benzene, dimethyl-	in vivo (Rabbit): Irritating. Experimental result, Weight of Evidence study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Solvent naphtha (petroleum), light arom.	Rabbit, 24 - 72 hrs: Not irritating
Benzene, (1-methylethyl)-	Rabbit, 24 - 72 hrs: Not irritating
Benzene, dimethyl-	Rabbit, 1 hrs: Slightly irritating (Not Classified)

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Cyclohexanone	Skin sensitization:, in vivo (Guinea pig): one batch showed a sensitization effect
Benzene, 1,2,4-trimethyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Solvent naphtha (petroleum), light arom.	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Benzene, (1-methylethyl)-	Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Benzene, (1-methylethyl)-	Overall evaluation: 2B. Possibly carcinogenic to humans.
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US. National Toxicology Program (NTP) Report on Carcinogens:

Benzene, (1- Reasonably Anticipated to be a Human Carcinogen.
methylethyl)-

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.

Specified substance(s):

Solvent naphtha May be fatal if swallowed and enters airways.
(petroleum), light arom.

Benzene, (1-methylethyl)- May be fatal if swallowed and enters airways.

Benzene, methyl(1- May be fatal if swallowed and enters airways.
methylethyl)-

Other effects: No 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

Cyclohexanone LC 50 (Fathead minnow (Pimephales promelas), 96 h): 696 - 770 mg/l
Mortality
LC 50 (Carp (Leuciscus idus melanotus), 48 h): 536 mg/l Mortality
LC 50 (Carp (Leuciscus idus melanotus), 48 h): 752 mg/l Mortality
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 481 - 578 mg/l
Mortality
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 630 mg/l Mortality

Benzene, 1,2,4-trimethyl- LC 50 (Pimephales promelas, 96 h): 7.72 mg/l Experimental result, Key
study

Solvent naphtha LL 50 (Oncorhynchus mykiss, 96 h): 10 mg/l Experimental result, Key study
(petroleum), light arom.



Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Benzene, (1-methylethyl)-	LC 50 (Oncorhynchus mykiss, 96 h): 4.8 mg/l Experimental result, Key study
Benzene, dimethyl-	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 6.702 - 10.032 mg/l Mortality
Benzene, methyl(1-methylethyl)-	LC 50 (96 h): Estimated 5 mg/l

Aquatic Invertebrates

Product:	No data available.
Specified substance(s): Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Cyclohexanone	LC 50 (Water flea (Daphnia magna), 24 h): 800 mg/l Mortality EC 100 (Daphnia magna, 24 h): 1,240 mg/l Experimental result, Weight of Evidence study EC 50 (Daphnia magna, 24 h): 820 mg/l Experimental result, Weight of Evidence study ED 0 (Daphnia magna, 24 h): 526 mg/l Experimental result, Weight of Evidence study LC 0 (Daphnia magna, 24 h): 540 mg/l Experimental result, Weight of Evidence study
Benzene, 1,2,4-trimethyl-	LC 50 (Daphnia magna, 48 h): 3.6 mg/l Experimental result, Key study
Solvent naphtha (petroleum), light arom.	EC 50 (Daphnia magna, 48 h): 32 mg/l Experimental result, Supporting study NOAEL (Daphnia magna, 48 h): 0.5 mg/l Experimental result, Key study
Benzene, (1-methylethyl)-	EC 10 (Daphnia magna, 48 h): 1.3 mg/l Experimental result, Key study
Benzene, dimethyl-	LC 50 (Water flea (Daphnia magna), 24 h): 150 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Specified substance(s): Solvent naphtha (petroleum), light arom.	NOAEL (Pimephales promelas): 2.6 mg/l Experimental result, Supporting study
Benzene, (1-methylethyl)-	NOAEL (Danio rerio; Pimephales promelas): 0.38 mg/l QSAR QSAR, Key study
Benzene, dimethyl-	NOAEL (Oncorhynchus mykiss): > 1.3 mg/l Experimental result, Key study

Aquatic Invertebrates

Product:	No data available.
Specified substance(s): Solvent naphtha (petroleum), light arom.	NOAEL (Daphnia magna): 16 mg/l Experimental result, Key study
Benzene, (1-methylethyl)-	NOAEL (Daphnia magna): 0.35 mg/l Experimental result, Key study EC 50 (Daphnia magna): 1.5 mg/l Experimental result, Key study
Benzene, dimethyl-	NOAEL (Ceriodaphnia dubia): 1.17 mg/l Read-across from supporting substance (structural analogue or surrogate), 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
Cyclohexanone	87 % (14 d) Detected in water. Experimental result, Supporting study 90 - 100 % (28 d) Detected in water. Experimental result, Key study
Benzene, 1,2,4-trimethyl-	96 % (13 d) Detected in water. Experimental result, Weight of Evidence study 80 % (5 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study 38 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study 92 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study
Solvent naphtha (petroleum), light arom.	74.76 % Detected in water. Experimental result, Supporting study 96.17 % (28 d) Detected in water. Experimental result, Supporting 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
Benzene, (1-methylethyl)-	70 % (20 d) Detected in water. Experimental result, Key study 2 % (60 d) Detected in water. Experimental result, Key study
Benzene, dimethyl-	87.8 % Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Benzene, 1,2,4-trimethyl-	Cyprinus carpio, Bioconcentration Factor (BCF): 33 - < 275 Aquatic sediment Experimental result, Supporting study
Solvent naphtha (petroleum), light arom.	Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study
Benzene, (1-methylethyl)-	Bioconcentration Factor (BCF): 94.69 Aquatic sediment Estimated by calculation, Key study
Benzene, dimethyl-	Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 7.6 - < 21.6 Aquatic sediment Experimental result, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Benzene, dimethyl-	Log Kow: 2.77 - 3.15 No Not specified, Not specified
Benzene, methyl(1-methylethyl)-	Log Kow: Estimated 5



Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Benzene, trimethyl-	No data available.
Butane	No data available.
Cyclohexanone	No data available.
Benzene, 1,2,4-trimethyl-	No data available.
Solvent naphtha (petroleum), light arom.	No data available.
Propane	No data available.
Benzene, (1-methylethyl)-	No data available.
Benzene, dimethyl-	No data available.
Benzene, methyl(1-methylethyl)-	No data available.

Other adverse effects: Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: No data available.

14. Transport information

DOT

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

IMDG

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

IATA

UN Number:	UN 1950
Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es):	
Class:	2.1
Label(s):	–
Packing Group:	–



Environmental Hazards: No
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)**

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Benzene	Flammability Cancer Aspiration Eye Blood Skin respiratory tract irritation Central nervous system

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butane	lbs. 100
Cyclohexanone	lbs. 5000
Propane	lbs. 100
Benzene, (1-methylethyl)-	lbs. 5000
Benzene, dimethyl-	lbs. 100
Benzene	lbs. 10
Benzene, ethyl-	lbs. 1000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Fire Hazard
- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Flammable aerosol
- Acute toxicity
- Skin Corrosion/Irritation
- Serious Eye Damage/Eye Irritation
- Carcinogenicity
- Aspiration Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Butane	lbs. 100
Cyclohexanone	lbs. 5000
Propane	lbs. 100
Benzene, (1-methylethyl)-	lbs. 5000
Benzene, dimethyl-	lbs. 100
Benzene	lbs. 10
Benzene, ethyl-	lbs. 1000



SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Benzene, trimethyl-	10000 lbs
Butane	10000 lbs
Cyclohexanone	10000 lbs
Benzene, 1,2,4-trimethyl-	10000 lbs
Solvent naphtha (petroleum), light arom.	10000 lbs
Propane	10000 lbs
Benzene, (1-methylethyl)-	10000 lbs
Benzene, dimethyl-	10000 lbs
Benzene, methyl(1-methylethyl)-	10000 lbs
Benzene	10000 lbs
Benzene, ethyl-	10000 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
Benzene, 1,2,4-trimethyl-	lbs	lbs.
Benzene, (1-methylethyl)-	lbs	lbs.
Benzene, dimethyl-	lbs	lbs.

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.

Benzene, (1-methylethyl)-	Carcinogenic. 05 2011
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008
Benzene, ethyl-	Carcinogenic. 05 2011

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

<u>Chemical Identity</u>
Benzene, trimethyl-
Butane
Cyclohexanone
Benzene, 1,2,4-trimethyl-
Propane
Benzene, (1-methylethyl)-
Benzene, dimethyl-
Benzene, methyl(1-methylethyl)-

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
Benzene

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
Benzene, trimethyl-
Butane
Cyclohexanone
Benzene, 1,2,4-trimethyl-
Propane
Benzene, (1-methylethyl)-
Benzene, dimethyl-



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

Inventory Status:

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

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

Issue Date: 12/17/2019

Revision Information: No data available.

Version #: 1.0

Further Information: No data available.

Disclaimer: 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.