



# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Plastic Spray with UV Inhibitors

**Other means of identification**

**SDS number:** RE1000012075

**Recommended restrictions**

**Product Use:** Coating

**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

Skin Corrosion/Irritation Category 2

Carcinogenicity Category 2

Toxic to reproduction Category 2

Specific Target Organ Toxicity - Category 3<sup>1</sup>

Single Exposure

Aspiration Hazard Category 1

#### Target Organs

1. Narcotic effect.

#### Environmental Hazards

Acute hazards to the aquatic environment Category 1

### Label Elements

#### Hazard Symbol:



**Signal Word:** Danger



**Hazard Statement:** Extremely flammable aerosol.  
Causes skin irritation.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May be fatal if swallowed and enters airways.  
Very toxic 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. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment.

**Response:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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). Take off contaminated clothing. Collect spillage.

**Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**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 (HNO):** None.

**3. Composition/information on ingredients**

**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*
Naphtha (petroleum), light alkylate	64741-66-8	25 - <50%
Pentane, 2,2,4-trimethyl-	540-84-1	25 - <50%
Ethane, 1,1-difluoro-	75-37-6	20 - <40%
Methane, dimethoxy-	109-87-5	10 - <20%
Solvent naphtha (petroleum), light aliph.	64742-89-8	5 - <10%
Naphtha (petroleum), heavy alkylate	64741-65-7	1 - <5%
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	1 - <5%
Ethanol	64-17-5	1 - <5%
Benzene, dimethyl-	1330-20-7	1 - <5%
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	97-86-9	0.1 - <1%
Benzene, ethyl-	100-41-4	0.1 - <1%
Benzene, methyl-	108-88-3	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

<b>Ingestion:</b>	Call a physician or poison control center immediately. Rinse mouth. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Inhalation:</b>	Move to fresh air.
<b>Skin Contact:</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.
<b>Eye contact:</b>	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:** Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. 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.



**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:** Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. 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. Wash hands thoroughly after handling.

**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
Pentane, 2,2,4-trimethyl-	REL	75 ppm 350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	375 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceil_Time	385 ppm 1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	300 ppm	US. ACGIH Threshold Limit Values (2008)
	TWA	300 ppm 1,450 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Methane, dimethoxy-	PEL	500 ppm 2,350 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	300 ppm	US. ACGIH Threshold Limit Values (03 2012)
	PEL	1,000 ppm 3,100 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm	US. ACGIH Threshold Limit Values (2008)
Solvent naphtha (petroleum), light aliph.	REL	1,000 ppm 3,100 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm 400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	100 ppm 400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	TWA	100 ppm 400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Naphtha (petroleum), heavy alkylate	REL	100 ppm 400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	100 ppm 400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm 400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
2-Pentanone, 4-hydroxy-4-methyl-	PEL	50 ppm 240 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 ppm	US. ACGIH Threshold Limit Values (2008)



	REL	50 ppm	240 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm	240 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Ethanol	REL	1,000 ppm	1,900 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm	1,900 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values (2009)
Benzene, dimethyl-	STEL	150 ppm	655 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	100 ppm		US. ACGIH Threshold Limit Values (2008)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
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)
Benzene, methyl-	STEL	150 ppm	560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm	375 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	375 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm	560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
2-Propanol, 2-methyl-	STEL	150 ppm	450 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	300 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	100 ppm	300 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	150 ppm	450 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm	300 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)

### 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)
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)
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (03 2013)



**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. 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 suitable protective clothing. 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:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin.

**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:** No data available.

**Flash Point:** -50 °C

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

**Upper/lower limit on flammability or explosive limits**

**Flammability limit - upper (%):** No data available.

**Flammability limit - lower (%):** No data available.

**Explosive limit - upper (%):** No data available.

**Explosive limit - lower (%):** No data available.

**Vapor pressure:** No data available.

**Vapor density:** No data available.

**Density:** No data available.



<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

**10. Stability and reactivity**

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	No data available.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	No data available.

**11. Toxicological information**

**Information on likely routes of exposure**

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

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

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

**Information on toxicological effects**

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

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
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<b>Specified substance(s):</b> Naphtha (petroleum), light alkylate	LD 50 (Rat): > 5,000 mg/kg
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Pentane, 2,2,4-trimethyl-	LD 50 (Rat): > 5,000 mg/kg
Methane, dimethoxy-	LD 50 (Rat): 6,423 mg/kg
Solvent naphtha (petroleum), light aliph.	LD 50 (Rat): > 5,000 mg/kg
Naphtha (petroleum), heavy alkylate	LD 50: > 2,000 mg/kg
2-Pentanone, 4-hydroxy-4-methyl-	LD 50 (Rat): 3,002 mg/kg
Ethanol	LD 50 (Rat): 10,470 mg/kg
Benzene, dimethyl-	LD 50 (Rat): 3,523 mg/kg
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	LD 50 (Rat): 9,590 mg/kg
Benzene, ethyl-	LD 50 (Rat): 3,500 mg/kg
Benzene, methyl-	LD 50 (Rat): 5,580 mg/kg

**Dermal**

**Product:** ATEmix: 164,609.05 mg/kg

**Inhalation**

**Product:** ATEmix: 76.45 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	NOAEL (Mouse, Rat(Female, Male), Inhalation, 107 - 113 Weeks): 1,402 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 5 - 28 d): 3,750 mg/kg Dermal Experimental result, Key study
Pentane, 2,2,4-trimethyl-	NOAEL (Rat(Female, Male), Inhalation): 24,300 mg/m3 Inhalation Read-across from supporting substance (structural analogue or surrogate), Key study
Ethane, 1,1-difluoro-	NOAEL (Rat(Female, Male), Inhalation, 104 Weeks): 2.5 %(m) Inhalation Experimental result, Key study
Methane, dimethoxy-	NOAEL (Rat(Female, Male), Inhalation, 13 Weeks): 2,000 ppm(m) Inhalation Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	NOAEL (Mouse, Rat(Female, Male), Inhalation, 107 - 113 Weeks): 1,402 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 5 - 28 d): 3,750 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting study
2-Pentanone, 4-hydroxy-4-methyl-	NOAEL (Rat(Female, Male), Inhalation): >= 4,685 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 41 - 45 d): 100 mg/kg Oral Experimental result, Key study
Ethanol	NOAEL (Rat(Male), Oral, 7 - 14 Weeks): 10 %(m) Oral Experimental result, Key study
Benzene, dimethyl-	NOAEL (Rat(Female), Oral, 90 d): 150 mg/kg Oral Experimental result, Key study



2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	NOAEL (Rat(Female, Male), Oral, 3 Months): 120 mg/kg Oral Experimental result, Key study NOAEL (Rat(Male), Inhalation, 2 yr): 1,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female), Inhalation, 2 yr): 250 ppm(m) Inhalation Experimental result, Key study
Benzene, ethyl-	NOAEL (Mouse(Female, Male), Inhalation, 104 Weeks): 75 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 28 d): 75 mg/kg Oral Experimental result, Key study
Benzene, methyl-	LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg (Target Organ(s): Liver, Kidney) Oral Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 625 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation - vapor): 2,355 mg/l Inhalation Experimental result, Key study

### Skin Corrosion/Irritation

**Product:**

No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	In vitro (Human): not corrosive Experimental result, Supporting study
Pentane, 2,2,4-trimethyl-	in vivo (Rabbit): Irritating Experimental result, Key study
Methane, dimethoxy-	in vivo (Rabbit): Not irritant Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	Assessment Non-Irritating in vivo (Rabbit): Irritating Experimental result, Key study
2-Pentanone, 4-hydroxy-4-methyl-	in vivo (Rabbit): Not irritant Experimental result, Key study
Ethanol	in vivo (Rabbit): Not irritant Experimental result, Key study
Benzene, dimethyl-	in vivo (Rabbit): Irritating. Experimental result, Weight of Evidence study
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	in vivo (Rabbit): Not irritating Expert judgment
Benzene, methyl-	in vivo (Rabbit): Irritating Experimental result, Key study

### Serious Eye Damage/Eye Irritation

**Product:**

No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	Rabbit, 24 - 72 hrs: Not irritating
Pentane, 2,2,4-trimethyl-	Rabbit, 24 - 72 hrs: Not irritating
Solvent naphtha (petroleum), light aliph.	Rabbit: Not irritating
2-Pentanone, 4-hydroxy-4-methyl-	Rabbit, 24 - 72 hrs: Irritating



Ethanol	Rabbit, 1 - 24 hrs: Not irritating
Benzene, dimethyl-	Rabbit, 1 hrs: Slightly irritating (Not Classified)
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	Rabbit, 24 - 72 hrs: Not irritating
Benzene, ethyl-	Rabbit, 7 d: Slightly irritating
Benzene, methyl-	Rabbit, 24 - 72 hrs: Not irritating

#### Respiratory or Skin Sensitization

**Product:** No data available.

#### Specified substance(s):

Naphtha (petroleum), light alkylate	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Pentane, 2,2,4-trimethyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Solvent naphtha (petroleum), light aliph.	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Pentanone, 4-hydroxy-4-methyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Ethanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	Skin sensitization:, in vivo (Guinea pig): Sensitising
Benzene, ethyl-	Skin sensitization:, in vivo (Human): Non sensitising
Benzene, methyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising

#### Carcinogenicity

**Product:** No data available.

#### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Benzene, ethyl- Overall evaluation: 2B. Possibly carcinogenic to humans.

#### 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.

#### Specified substance(s):

Benzene, methyl- Suspected of damaging fertility or the unborn child.

#### Specific Target Organ Toxicity - Single Exposure

**Product:** Narcotic effect. - Category 3 with narcotic effects.



**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.  
**Specified substance(s):**  
Benzene, methyl- Category 2

**Target Organs**

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

**Aspiration Hazard**

**Product:** No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	May be fatal if swallowed and enters airways.
Pentane, 2,2,4-trimethyl-	May be fatal if swallowed and enters airways.
Solvent naphtha (petroleum), light aliph.	May be fatal if swallowed and enters airways.
Naphtha (petroleum), heavy alkylate	May be fatal if swallowed and enters airways.
Benzene, methyl-	May be fatal if swallowed and enters airways.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	LL 50 (Oncorhynchus mykiss, 96 h): 10 mg/l Experimental result, Key study
Pentane, 2,2,4-trimethyl-	LC 50 (Oncorhynchus mykiss, 96 h): 0.11 mg/l Read-across based on grouping of substances (category approach), Key study
Methane, dimethoxy-	EC 50 (Pimephales promelas, 96 h): 6.36 g/l Experimental result, Supporting study
Solvent naphtha (petroleum), light aliph.	LL 50 (Pimephales promelas, 96 h): 8.2 mg/l Experimental result, Key study
2-Pentanone, 4-hydroxy-4-methyl-	LC 50 (Oryzias latipes, 96 h): > 100 mg/l Experimental result, Key study
Ethanol	LC 50 (Pimephales promelas, 96 h): 15.3 g/l Experimental result, Key study
Benzene, dimethyl-	LC 50 (Rainbow trout, donaldson trout (Oncorhynchus mykiss), 96 h): 6.702 - 10.032 mg/l Mortality
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	LC 50 (Oncorhynchus mykiss, 96 h): 20 mg/l Experimental result, Key study
Benzene, ethyl-	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 38.9 - 62.83 mg/l Mortality
Benzene, methyl-	LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study



**Aquatic Invertebrates**

**Product:**

No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.5 mg/l Experimental result, Key study
Pentane, 2,2,4-trimethyl-	EC 50 (Daphnia magna, 48 h): +/- 2.4 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
Methane, dimethoxy-	EC 50 (Daphnia magna, 48 h): > 1,200 mg/l Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.5 mg/l Experimental result, Key study
2-Pentanone, 4-hydroxy-4-methyl-	NOAEL (Daphnia magna, 48 h): 1,000 mg/l Experimental result, Key study EC 50 (Daphnia magna, 48 h): > 1,000 mg/l Experimental result, Key study
Ethanol	LC 50 (Ceriodaphnia dubia, 48 h): 5,012 mg/l Experimental result, Key study
Benzene, dimethyl-	LC 50 (Water flea (Daphnia magna), 24 h): 150 mg/l Mortality
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	NOAEL (Daphnia magna, 48 h): 22 mg/l Experimental result, Key study EC 50 (Daphnia magna, 48 h): > 29 mg/l Experimental result, Key study
Benzene, ethyl-	LC 50 (Water flea (Daphnia magna), 24 h): 57 - 100 mg/l Mortality
Benzene, methyl-	LC 50 (Water flea (Daphnia magna), 48 h): 54.6 - 174.7 mg/l Mortality LC 50 (Ceriodaphnia dubia, 2 d): 3.78 mg/l Experimental result, Key study

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:**

No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	NOAEL (Pimephales promelas): 2.6 mg/l Experimental result, Supporting study
Pentane, 2,2,4-trimethyl-	NOAEL (Oncorhynchus mykiss): 0.82 mg/l QSAR QSAR, Key study
Methane, dimethoxy-	NOAEL : 450.281 mg/l QSAR QSAR, Key study
Solvent naphtha (petroleum), light aliph.	NOAEL (Daphnia magna): 2.6 mg/l Other, Key study
Ethanol	NOAEL (Oryzias latipes): 7,900 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
Benzene, dimethyl-	NOAEL (Oncorhynchus mykiss): > 1.3 mg/l Experimental result, Key study
Benzene, methyl-	NOAEL (Oncorhynchus kisutch): 1.39 mg/l Experimental result, Key study LOAEL (Oncorhynchus kisutch): 2.77 mg/l Experimental result, Key study

**Aquatic Invertebrates**

**Product:**

No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate	NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Key study
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Pentane, 2,2,4-trimethyl-	NOAEL (Daphnia magna): 0.17 mg/l Read-across based on grouping of substances (category approach), Key study EC 50 (Daphnia magna): 0.64 mg/l Read-across based on grouping of substances (category approach), Key study
Methane, dimethoxy-	NOAEL : 150.5 mg/l QSAR QSAR, Key study
Solvent naphtha (petroleum), light aliph.	EC 50 (Daphnia magna): > 40 mg/l Experimental result, Key study
2-Pentanone, 4-hydroxy-4-methyl-	EC 50 (Daphnia magna): > 100 mg/l Experimental result, Key study NOAEL (Daphnia magna): 100 mg/l Experimental result, Key study
Ethanol	LC 50 (Daphnia magna): 454 mg/l Experimental result, Key study NOAEL (Daphnia magna): 9.6 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
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	EC 50 (Daphnia magna): 6.59 mg/l Experimental result, Weight of Evidence study NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Weight of Evidence study
Benzene, ethyl-	LC 50 (Ceriodaphnia dubia): 3.2 mg/l Other, Key study NOAEL (Ceriodaphnia dubia): 1 mg/l Other, Key study
Benzene, methyl-	LOAEL (Ceriodaphnia dubia): 2.76 mg/l Experimental result, Key study NOAEL (Ceriodaphnia dubia): 0.74 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):**

Naphtha (petroleum), light alkylate	77.05 % Detected in water. Experimental result, Supporting study 90.35 % (28 d) Detected in water. Experimental result, Supporting study
Pentane, 2,2,4-trimethyl-	64.06 % Detected in water. Read-across based on grouping of substances (category approach), Key study
Methane, dimethoxy-	4.87 % (20 min) Detected in water. Experimental result, Supporting study
Solvent naphtha (petroleum), light aliph.	90.35 % (28 d) Detected in water. Experimental result, Supporting study 77.05 % Detected in water. Experimental result, Supporting study
2-Pentanone, 4-hydroxy-4-methyl-	3 % (5 d) Detected in water. Experimental result, Not specified 100 % Detected in water. Experimental result, Key study
Ethanol	95 % 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
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	74.3 % (28 d) Detected in water. Experimental result, Key study



Benzene, ethyl- 2.7 % Detected in water. Other, Supporting study  
70 - 80 % (28 d) Detected in water. Experimental result, Key study

Benzene, methyl- 100 % (14 d) Detected in water. Experimental result, Weight of Evidence study  
86 % Detected in water. Experimental result, Weight of Evidence study

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

Naphtha (petroleum), light alkylate Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study

Pentane, 2,2,4-trimethyl- Bioconcentration Factor (BCF): 231 Aquatic sediment Estimated by calculation, Key study

Solvent naphtha (petroleum), light aliph. Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study

Ethanol Cyprinus carpio, Bioconcentration Factor (BCF): 4.5 Aquatic sediment Read-across from supporting substance (structural analogue or surrogate), Supporting study

Benzene, dimethyl- Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 7.6 - < 21.6 Aquatic sediment Experimental result, Key study

2-Propenoic acid, 2-methyl-, 2-methylpropyl ester Fish, Bioconcentration Factor (BCF): 64 Aquatic sediment Estimated by calculation, Supporting study

Benzene, ethyl- Carassius auratus, Bioconcentration Factor (BCF): 15.5 Aquatic sediment Other, Supporting study

Benzene, methyl- Leuciscus idus, Bioconcentration Factor (BCF): 90 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, ethyl- Log Kow: 3.13 - 3.14 No Other, Supporting study

**Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Naphtha (petroleum), light alkylate No data available.  
Pentane, 2,2,4-trimethyl- No data available.  
Ethane, 1,1-difluoro- No data available.  
Methane, dimethoxy- No data available.  
Solvent naphtha (petroleum), light aliph. No data available.  
Naphtha (petroleum), heavy alkylate No data available.  
2-Pentanone, 4-hydroxy-4-methyl- No data available.  
Ethanol No data available.



Benzene, dimethyl-	No data available.
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	No data available.
Benzene, ethyl-	No data available.
Benzene, methyl-	No data available.

**Known or predicted distribution to environmental compartments**

Naphtha (petroleum), light alkylate	No data available.
Pentane, 2,2,4-trimethyl-	No data available.
Methane, dimethoxy-	No data available.
Solvent naphtha (petroleum), light aliph.	No data available.
Naphtha (petroleum), heavy alkylate	No data available.
2-Pentanone, 4-hydroxy-4-methyl-	No data available.
Ethanol	No data available.
Benzene, dimethyl-	No data available.
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	No data available.
Benzene, ethyl-	No data available.
Benzene, methyl-	No data available.
2-Propanol, 2-methyl-	No data available.

**Other adverse effects:** Very toxic to aquatic organisms.

**13. Disposal considerations**

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Do not allow to enter drains, sewers or watercourses.

**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.:	F-D, S-U
Packing Group:	–
Environmental Hazards:	Yes
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: Yes  
Marine Pollutant: No  
  
Special precautions for user: Not regulated.  
    Cargo aircraft only: Allowed.

**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)**  
None present or none present in regulated quantities.

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

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Pentane, 2,2,4-trimethyl-	lbs. 1000
Methane, dimethoxy-	lbs. 100
Ethanol	lbs. 100
Benzene, dimethyl-	lbs. 100
Benzene, ethyl-	lbs. 1000
Benzene, methyl-	lbs. 1000
2-Propanol, 2-methyl-	lbs. 100

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

**Hazard categories**

- Fire Hazard
- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Flammable aerosol
- Skin Corrosion/Irritation
- Carcinogenicity
- Toxic to reproduction
- Specific Target Organ Toxicity - Single Exposure
- Aspiration Hazard

**SARA 302 Extremely Hazardous Substance**

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Ethane, 1,1-difluoro-		

**SARA 304 Emergency Release Notification**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Pentane, 2,2,4-trimethyl-	lbs. 1000
Ethane, 1,1-difluoro-	
Methane, dimethoxy-	lbs. 100
Ethanol	lbs. 100
Benzene, dimethyl-	lbs. 100
Benzene, ethyl-	lbs. 1000



Benzene, methyl- lbs. 1000  
2-Propanol, 2-methyl- lbs. 100

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Naphtha (petroleum), light alkylate	10000 lbs
Pentane, 2,2,4-trimethyl-	10000 lbs
Ethane, 1,1-difluoro-	10000 lbs
Methane, dimethoxy-	10000 lbs
Solvent naphtha (petroleum), light aliph.	10000 lbs
Naphtha (petroleum), heavy alkylate	10000 lbs
2-Pentanone, 4-hydroxy-4-methyl-	10000 lbs
Ethanol	10000 lbs
Benzene, dimethyl-	10000 lbs
2-Propenoic acid, 2-methyl-, 2-methylpropyl ester	10000 lbs
Benzene, ethyl-	10000 lbs
Benzene, methyl-	10000 lbs
2-Propanol, 2-methyl-	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, dimethyl-	lbs	lbs.
Benzene, ethyl-	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, ethyl- Carcinogenic. 05 2011  
Benzene, methyl- Developmental toxin. 03 2008

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

Chemical Identity  
Pentane, 2,2,4-trimethyl-  
Ethane, 1,1-difluoro-  
Methane, dimethoxy-  
Solvent naphtha (petroleum), light aliph.  
Naphtha (petroleum), heavy alkylate  
2-Pentanone, 4-hydroxy-4-methyl-  
Ethanol  
Benzene, dimethyl-  
Benzene, ethyl-

**US. Massachusetts RTK - Substance List**

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

**US. Pennsylvania RTK - Hazardous Substances**

Chemical Identity  
Pentane, 2,2,4-trimethyl-  
Methane, dimethoxy-  
Solvent naphtha (petroleum), light aliph.  
Naphtha (petroleum), heavy alkylate  
2-Pentanone, 4-hydroxy-4-methyl-  
Ethanol  
Benzene, dimethyl-



**US. Rhode Island RTK**

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

**International regulations**

**Montreal protocol**

Ethane, 1,1-difluoro-

Group I Annex F

**Stockholm convention**

Ethane, 1,1-difluoro-

**Rotterdam convention**

Ethane, 1,1-difluoro-

**Kyoto protocol**

**Inventory Status:**

Australia AICS:	Not in compliance with the inventory.
Canada DSL Inventory List:	On or 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**

**Issue Date:** 10/24/2019

**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.