SAFETY DATA SHEET

1. Identification

Product identifier: Sprayway 950 Ink Anti-Skin

Other means of identification
SDS number: RE1000009788

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
Skin sensitizer	Category 1
Carcinogenicity	Category 2
Toxic to reproduction	Category 2
Specific Target Organ Toxicity - Single Exposure	Category 3[1.]
Specific Target Organ Toxicity - Repeated Exposure	Category 2
Aspiration Hazard	Category 1

Target Organs
1. Narcotic effect.

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:
Extremely flammable aerosol.
Causes skin irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

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. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. 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 or rash 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. 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 (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Butane	106-97-8	20 - <50%
Distillates (petroleum), hydrotreated light	64742-47-8	10 - <20%
2-Propanol	67-63-0	10 - <20%
Hexane	110-54-3	10 - <20%
Propane	74-98-6	10 - <20%
Hexane, Branched And Linear	92112-69-1	5 - <10%
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	128-37-0	5 - <10%
2-Butanone, oxime	96-29-7	0.1 - <1%
Cyclohexane	110-82-7	0.1 - <1%
Heptane	142-82-5	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 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.

Inhalation: Move to fresh air.

Skin Contact: Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

Eye contact: 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:	Dike for later disposal. 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. Avoid contact with eyes, skin, and clothing.
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
Butane	REL	800 ppm 1,900 mg/m3	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/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Distillates (petroleum), hydrotreated light	REL	100 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2008)
	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2008)
2-Propanol	STEL	500 ppm 1,225 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	200 ppm	US. ACGIH Threshold Limit Values (2008)
	REL	400 ppm 980 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	400 ppm 980 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	400 ppm 980 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	400 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	500 ppm 1,225 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Hexane	TWA	50 ppm 180 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	500 ppm 1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	REL	50 ppm 180 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm	US. ACGIH Threshold Limit Values (2008)
Propane	REL	1,000 ppm 1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm 1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	TWA	10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- - Inhalable fraction and vapor.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2008)
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	REL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Cyclohexane	TWA	100 ppm	US. ACGIH Threshold Limit Values (2008)
	TWA	300 ppm 1,050 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	300 ppm 1,050 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	300 ppm 1,050 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Heptane	TWA	400 ppm 1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	85 ppm 350 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	500 ppm 2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

	STEL	500 ppm	2,000 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	400 ppm		US. ACGIH Threshold Limit Values (02 2012)
	STEL	500 ppm		US. ACGIH Threshold Limit Values (02 2012)
	Ceil_Time	440 ppm	1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Methanol	REL	200 ppm	260 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	200 ppm	260 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	200 ppm	260 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	250 ppm	325 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	200 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	250 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	250 ppm	325 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
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)
Benzene	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)
Naphthalene	PEL	10 ppm	50 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	10 ppm	50 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	10 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	15 ppm	75 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	10 ppm	50 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	15 ppm	75 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000)

				(1989)
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
2-Propanol (acetone: Sampling time: End of shift at end of work week.)	40 mg/l (Urine)	ACGIH BEL (03 2013)
Hexane (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift.)	0.5 mg/l (Urine)	ACGIH BEL (03 2018)
Methanol (methanol: Sampling time: End of shift.)	15 mg/l (Urine)	ACGIH BEL (03 2013)
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)
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. 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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	
Physical state:	liquid 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:	-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 (%):	Estimated 9.9 %(V)
Flammability limit - lower (%):	Estimated 1.4 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	Estimated 3,447 hPa (20 °C)
Vapor density:	No data available.
Density:	Estimated 0.696 g/cm3
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:	No data available.
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: Not classified for acute toxicity based on available data.

Specified substance(s):

Distillates (petroleum), hydrotreated light	LD 50 (Rat): > 5,000 mg/kg
2-Propanol	LD 50 (Rat): 5.84 g/kg
Hexane	LD 50: > 2,000 mg/kg
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	LD 50 (Rat): > 6,000 mg/kg
2-Butanone, oxime	LD 50 (Rat): 2,326 mg/kg NOAEL (Rat): 100 mg/kg
Cyclohexane	LD 50 (Rat): > 5,000 mg/kg
Heptane	LD 50 (Rat): > 5,000 mg/kg

Dermal

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

Specified substance(s):

Distillates (petroleum), hydrotreated light	LD 50 (Rabbit): > 2,000 mg/kg
2-Propanol	LD 50: > 2,000 mg/kg
Hexane	LD 50 (Rabbit): > 2,000 mg/kg
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	LD 50 (Rat): > 2,000 mg/kg
2-Butanone, oxime	LD 50 (Rabbit): > 1,000 mg/kg
Cyclohexane	LD 50 (Rabbit): > 2,000 mg/kg
Heptane	LD 50 (Rabbit): > 2,000 mg/kg

Inhalation

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

Specified substance(s):

Butane	LC 50: > 100 mg/l LC 50: > 100 mg/l
Distillates (petroleum), hydrotreated light	LC 50: > 5 mg/l LC 50: > 20 mg/l
2-Propanol	LC 50: > 5 mg/l LC 50: > 20 mg/l
Hexane	LC 50 (Rat): > 31.86 mg/l LC 50: > 5 mg/l
Propane	LC 50: > 100 mg/l LC 50: > 100 mg/l
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	LC 50: > 5 mg/l LC 50: > 20 mg/l
2-Butanone, oxime	LC 50 (Rat): > 10.5 mg/l
Cyclohexane	LC 50 (Rat): > 32,880 mg/m3
Heptane	LC 50 (Rat): > 29.29 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
Distillates (petroleum), hydrotreated light	NOAEL (Rat(Female, Male), Inhalation): >= 24 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female), Oral, 70 - 147 d): 750 mg/kg Oral Experimental result, Key study
2-Propanol	NOAEL (Rat, Inhalation, >= 104 Weeks): 5,000 ppm(m) Inhalation Experimental result, Key study
Hexane	NOAEL (Mouse(Male), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study LOAEL (Mouse(Male), Inhalation, 13 Weeks): 1,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Male), Inhalation, 16 Weeks): 3,000 ppm(m) Inhalation Experimental result, Key study

	LOAEL (Mouse(Female), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study
Propane	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
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	NOAEL (Rat(Male), Oral, 1.25 - 22.75 Months): 25 mg/kg Oral Experimental result, Key study
2-Butanone, oxime	NOAEL (Rat(Female, Male), Oral, 13 Weeks): 125 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 90 mg/m3 Inhalation Experimental result, Key study
Cyclohexane	NOAEL (Rat(Female, Male), Inhalation, 13 - 18 Weeks): 7,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Mouse(Female, Male), Inhalation, 13 - 18 Weeks): 500 ppm(m) Inhalation Experimental result, Key study
Heptane	NOAEL (Rat(Male), Inhalation): 12,470 mg/m3 Inhalation Experimental result, Key study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	in vivo (Rabbit): Not irritant Experimental result, Key study
2-Propanol	in vivo (Rabbit): Not Classified Experimental result, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	in vivo (Rabbit): Not irritant Experimental result, Key study
2-Butanone, oxime	in vivo (Rabbit): Irritating. Experimental result, Weight of Evidence study
Cyclohexane	Review (Various): Irritating. in vivo (Rabbit): Not irritant Experimental result, Weight of Evidence study
Heptane	in vivo (Rabbit): Irritating Read-across based on grouping of substances (category approach), Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
2-Propanol	Rabbit, 1 d: Category 2: Causes serious eye irritation
Hexane	Rabbit, 1 - 72 hrs: Not irritating
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Rabbit, 24 - 72 hrs: Not irritating

2-Butanone, oxime	Rabbit, 24 - 72 hrs: Corrosive
Heptane	Rabbit, 24 - 72 hrs: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Propanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Skin sensitization:, in vivo (Human): Non sensitising Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Butanone, oxime	Skin sensitization:, in vivo (Guinea pig): Sensitising
Cyclohexane	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Heptane	Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

Specified substance(s):

2-Butanone, oxime	Suspect cancer hazard - may cause cancer.

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.

Specified substance(s):

Hexane	Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.

Specific Target Organ Toxicity - Repeated Exposure

Product: Category 2

Target Organs

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	May be fatal if swallowed and enters airways.
Hexane	May be fatal if swallowed and enters airways.
Hexane, Branched And Linear	May be fatal if swallowed and enters airways.
Cyclohexane	May be fatal if swallowed and enters airways.
Heptane	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):

Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
2-Propanol	LC 50 (Pimephales promelas, 96 h): 9,640 mg/l Experimental result, Key study
Hexane	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2.101 - 2.981 mg/l Mortality
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	LC 50 (Pimephales promelas, 96 h): 0.363 mg/l
2-Butanone, oxime	LC 50 (Oryzias latipes, 96 h): > 100 mg/l Experimental result, Key study
Cyclohexane	LC 50 (Pimephales promelas, 96 h): 4.53 mg/l Experimental result, Key study
Heptane	LC 50 (Mozambique tilapia (Tilapia mossambica), 96 h): 375 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
2-Propanol	LC 50 (Daphnia magna, 24 h): > 10,000 mg/l Experimental result, Key study
Hexane	EC 50 (Daphnia magna, 48 h): 21.85 mg/l QSAR QSAR, Key study LC 50 (Water flea (Daphnia magna), 24 h): > 50 mg/l Mortality

Hexane, Branched And Linear	EC 50 (48 h): < 100 mg/l Estimated
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	EC 50 (Daphnia magna, 48 h): 0.61 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.15 mg/l Experimental result, Key study
2-Butanone, oxime	EC 50 (Daphnia magna, 48 h): +/- 201 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): +/- +/- 93 mg/l Experimental result, Key study
Cyclohexane	EC 50 (Daphnia magna, 48 h): 0.9 mg/l Experimental result, Key study
Heptane	EC 50 (Daphnia magna, 48 h): 1.5 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	NOAEL (Oncorhynchus mykiss): 0.098 mg/l QSAR QSAR, Key study
Hexane	NOAEL (Oncorhynchus mykiss): 2.8 mg/l QSAR QSAR, Key study
2-Butanone, oxime	NOAEL (Oryzias latipes): +/- 50 mg/l Experimental result, Key study
Heptane	NOAEL (Oncorhynchus mykiss): 1.284 mg/l QSAR QSAR, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Hexane	NOAEL (Daphnia magna): 4.888 mg/l QSAR QSAR, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	NOAEL (Daphnia magna): 0.316 mg/l Experimental result, Key study
2-Butanone, oxime	NOAEL (Daphnia magna): >= 100 mg/l Experimental result, Key study
Heptane	NOAEL (Daphnia magna): 0.17 mg/l Read-across based on grouping of substances (category approach), Key study EC 50 (Daphnia magna): 0.23 mg/l Read-across based on grouping of substances (category approach), 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
Distillates (petroleum), hydrotreated light	61 % Detected in water. Experimental result, Supporting study
2-Propanol	53 % (5 d) Detected in water. Experimental result, Key study
Hexane	81 % Detected in water. Read-across based on grouping of substances (category approach), Key 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
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	4.5 % (28 d) Detected in water. Experimental result, Key study
2-Butanone, oxime	70 % Detected in water. Experimental result, Key study
Cyclohexane	77 % (28 d) Detected in water. Experimental result, Key study
Heptane	70 % Detected in water. Experimental result, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Hexane	Pimephales promelas, Bioconcentration Factor (BCF): 501.19 Aquatic sediment QSAR, Key study
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Cyprinus carpio, Bioconcentration Factor (BCF): 330 - 1,800 Aquatic sediment Experimental result, Key study
2-Butanone, oxime	Cyprinus carpio, Bioconcentration Factor (BCF): 2.5 - 5.8 Aquatic sediment Experimental result, Key study
Cyclohexane	Cyprinus carpio, Bioconcentration Factor (BCF): 37 - 129 Aquatic sediment Experimental result, Supporting study
Heptane	Bioconcentration Factor (BCF): 552 Aquatic sediment Estimated by calculation, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	Log Kow: 5.11 - 5.2 No Experimental result, Weight of Evidence study

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Butane	No data available.
Distillates (petroleum), hydrotreated light	No data available.
2-Propanol	No data available.
Hexane	No data available.
Propane	No data available.
Hexane, Branched And Linear	No data available.
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	No data available.
2-Butanone, oxime	No data available.
Cyclohexane	No data available.
Heptane	No data available.

Other adverse effects: Toxic to aquatic organisms. Harmful to aquatic life with long lasting effects.

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.:	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)

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

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Butane	lbs. 100
2-Propanol	lbs. 100
Hexane	lbs. 5000
Propane	lbs. 100
Cyclopentane, methyl-	lbs. 100
Cyclohexane	lbs. 1000
Heptane	lbs. 100
Methanol	lbs. 5000
Benzene, methyl-	lbs. 1000
Benzene	lbs. 10
Naphthalene	lbs. 100
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
Skin Corrosion/Irritation
Skin sensitizer
Carcinogenicity
Toxic to reproduction
Specific Target Organ Toxicity - Single Exposure
Specific Target Organ Toxicity - Repeated Exposure
Aspiration Hazard

SARA 302 Extremely Hazardous Substance

Chemical Identity	Reportable quantity	Threshold Planning Quantity
Distillates (petroleum), hydrotreated light		
Hexane		

SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Butane	lbs. 100
Distillates (petroleum), hydrotreated light	
2-Propanol	lbs. 100
Hexane	lbs. 5000
Propane	lbs. 100
Cyclopentane, methyl-	lbs. 100
Cyclohexane	lbs. 1000
Heptane	lbs. 100
Methanol	lbs. 5000
Benzene, methyl-	lbs. 1000
Benzene	lbs. 10
Naphthalene	lbs. 100
Benzene, ethyl-	lbs. 1000

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Butane	10000 lbs
Distillates (petroleum), hydrotreated light	10000 lbs
2-Propanol	10000 lbs
Hexane	10000 lbs
Propane	10000 lbs
Hexane, Branched And Linear	10000 lbs
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	10000 lbs
2-Butanone, oxime	10000 lbs
Cyclohexane	10000 lbs
Heptane	10000 lbs
Methanol	10000 lbs
Benzene, methyl-	10000 lbs
Benzene	10000 lbs
Naphthalene	10000 lbs
Benzene, ethyl-	10000 lbs

SARA 313 (TRI Reporting)

Chemical Identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
2-Propanol	lbs	lbs.
Hexane	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.

Hexane	Male reproductive toxin. 12 2017
Methanol	Developmental toxin. 03 2012
Benzene, methyl-	Developmental toxin. 03 2008
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008
Naphthalene	Carcinogenic. 05 2011
Benzene, ethyl-	Carcinogenic. 05 2011

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

Chemical Identity
Butane
Distillates (petroleum), hydrotreated light
2-Propanol
Hexane
Propane
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-
Cyclopentane, methyl-

US. Massachusetts RTK - Substance List

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

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Butane
Distillates (petroleum), hydrotreated light
2-Propanol
Hexane
Propane
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-
Cyclopentane, methyl-

US. Rhode Island RTK

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

International regulations

Montreal protocol

Distillates (petroleum), hydrotreated light
Hexane

Stockholm convention

Distillates (petroleum), hydrotreated light	- -
Hexane	- -

Rotterdam convention

Distillates (petroleum), hydrotreated light	- -
Hexane	- -

Kyoto protocol

Inventory Status:

Australia AICS:	On or 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:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or 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:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory

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

Issue Date:	11/08/2019
Revision Information:	No data available.
Version #:	0.0
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.