

SAFETY DATA SHEET

1. Identification

Product identifier: CHEMICAL GUYS FACTORY FINISH TRIM COATING

Other means of identification

SDS number: RE1000028012

Recommended restrictions

Product use: Coating

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: CHEMICAL GUYS MFG CO
Address: 14108 S WESTERN AVE
GARDENA, CA 90249
Telephone: 1-310-674-8135
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

Toxic to reproduction Category 2

Specific Target Organ Toxicity -
Single Exposure Category 3¹

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.
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. 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 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.

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 (%)*
Propane	74-98-6	20 - <50%
Butane	106-97-8	20 - <50%
Hexane	110-54-3	10 - <25%
Naphtha (petroleum), hydrotreated light	64742-49-0	10 - <25%
Siloxanes and Silicones, di-Me	63148-62-9	5 - <10%
2-Propanone	67-64-1	5 - <10%
Cyclohexane	110-82-7	0.1 - <1%
Heptane	142-82-5	0.1 - <1%
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	84-66-2	0.1 - <1%
Solvent naphtha (petroleum), light aliph.	64742-89-8	0.1 - <1%

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

4. First-aid measures

Ingestion:	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:	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.
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.
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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.
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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.
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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: Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. 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 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
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)
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)
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)
Naphtha (petroleum), hydrotreated light	TWA	50 ppm		US. ACGIH Threshold Limit Values (2008)
	PEL	100 ppm	400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
	REL	100 ppm	400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
2-Propanone	TWA	100 ppm	400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	1,000 ppm	2,400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	1,000 ppm	2,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Cyclohexane	TWA	250 ppm		US. ACGIH Threshold Limit Values (03 2015)
	TWA	750 ppm	1,800 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	500 ppm		US. ACGIH Threshold Limit Values (03 2015)
	REL	250 ppm	590 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Heptane	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)
2-Propanone	PEL	300 ppm	1,050 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	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)
2-Propanone	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)

1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	REL		5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA		5 mg/m3	US. ACGIH Threshold Limit Values (2008)
	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Solvent naphtha (petroleum), light aliph.	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)
	PEL	100 ppm	400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
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)
Acetic acid, pentyl ester	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	REL	100 ppm	525 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	100 ppm		US. ACGIH Threshold Limit Values (2008)
	PEL	100 ppm	525 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Benzene, methyl-	TWA	100 ppm	525 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	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)
	Ceilin g	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. CON C	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, ethyl-	STEL	125 ppm	545 mg/m3
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)
Acetic acid ethyl ester	TWA	400 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	400 ppm	1,400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	400 ppm	1,400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	400 ppm	1,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
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)
	Ceilin g	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)
	OSH A_A CT	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. CON C	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)
Naphthalene	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)
	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)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Hexane (2,5-Hexanedion, without hydrolysis: Sampling time: End of shift.)	0.5 mg/l (Urine)	ACGIH BEL (03 2018)
2-Propanone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEL (03 2015)
Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in 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, 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 (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)

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. 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. Wash hands before breaks and immediately after handling the product.

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 56.05 °C
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 (%):	11.2 %(V)
Flammability limit - lower (%):	2.3 %(V)
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.
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.
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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):

Hexane	LD 50: > 2,000 mg/kg
Naphtha (petroleum), hydrotreated light	LD 50 (Rat): > 5,000 mg/kg
2-Propanone	LD 50 (Rat): 5,800 mg/kg
Cyclohexane	LD 50 (Rat): > 5,000 mg/kg
Heptane	LD 50 (Rat): > 5,000 mg/kg
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	LD 50 (Mouse): 2,500 mg/kg
Solvent naphtha (petroleum), light aliph.	LD 50 (Rat): > 5,000 mg/kg

Dermal

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

Specified substance(s):

Hexane	LD 50 (Rabbit): > 2,000 mg/kg
Naphtha (petroleum), hydrotreated light	LD 50 (Rabbit): > 3,750 mg/kg
2-Propanone	LD 50 (Rabbit): > 7,426 mg/kg
Cyclohexane	LD 50 (Rabbit): > 2,000 mg/kg
Heptane	LD 50 (Rabbit): > 2,000 mg/kg
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	LD 50: > 2,000 mg/kg
Solvent naphtha (petroleum), light aliph.	LD 50 (Rabbit): > 2,000 mg/kg

Inhalation

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

Specified substance(s):

Propane	LC 50: > 100 mg/l LC 50: > 100 mg/l
Butane	LC 50: > 100 mg/l LC 50: > 100 mg/l

Hexane	LC 50 (Rat): > 31.86 mg/l LC 50: > 5 mg/l
Naphtha (petroleum), hydrotreated light	LOAEL (Human): 2,400 mg/m3 LC 50 (Rat): > 7,630 mg/m3 LC 50: > 5 mg/l
2-Propanone	LC 50 (Rat): 50.1 mg/l LC 50: > 5 mg/l
Cyclohexane	LC 50 (Rat): > 32,880 mg/m3
Heptane	LC 50 (Rat): > 29.29 mg/l
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	LC 50: > 20 mg/l LC 50: > 5 mg/l
Solvent naphtha (petroleum), light aliph.	LC 50: 5.6 mg/l LC 50: > 20 mg/l LOAEL (Human): 4,320 mg/m3 LC 50 (Rat): > 7,630 mg/m3

Repeated dose toxicity

Product: No data available.

Specified substance(s):

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
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
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
Naphtha (petroleum), hydrotreated light	LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg Oral Read- across based on grouping of substances (category approach), Key study NOAEL (Rat(Female, Male), Dermal, 28 d): > 375 mg/kg Dermal Experimental result, Supporting study NOAEL (Rat(Female, Male), Inhalation): 10,000 mg/m3 Inhalation Experimental result, Key study
2-Propanone	NOAEL (Rat(Male), Oral, 13 Weeks): 10,000 ppm(m) Oral 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
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	NOAEL (Rat(Female, Male), Oral, 6 - 16 Weeks): 150 mg/kg Oral 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

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

2-Propanone	in vivo (Rabbit): Not irritant Experimental result, Supporting 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
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	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

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Hexane	Rabbit, 1 - 72 hrs: Not irritating
Naphtha (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
2-Propanone	Irritating. Rabbit, 24 hrs: Minimum grade of severe eye irritant
Heptane	Rabbit, 24 - 72 hrs: Not irritating
Solvent naphtha (petroleum), light aliph.	Rabbit: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Naphtha (petroleum), hydrotreated light	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2-Propanone	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Cyclohexane	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Heptane	Skin sensitization:, in vivo (Guinea pig): Non sensitising
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Solvent naphtha (petroleum), light aliph.	Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s):

Hexane Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):

Hexane Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
2-Propanone Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
Cyclohexane Inhalation - vapor: Narcotic effect. - Category 3 with narcotic effects.
Heptane Narcotic effect. - Category 3 with narcotic effects.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s):

Hexane Inhalation - vapor: Nervous System - Category 2

Target Organs

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Hexane May be fatal if swallowed and enters airways.
Naphtha (petroleum), hydrotreated light 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.
Solvent naphtha (petroleum), light aliph. 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):

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

Hexane	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2.101 - 2.981 mg/l Mortality
Naphtha (petroleum), hydrotreated light	LC 50 (96 h): 8.41 mg/l Experimental result, Key study
Siloxanes and Silicones, di-Me	LC 50 (Redear sunfish (Lepomis microlophus), 96 h): 26.27 - 56.73 mg/l Mortality
2-Propanone	LC 50 (Oncorhynchus mykiss, 96 h): 5,540 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
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	NOAEL (Oncorhynchus mykiss, 96 h): 1.9 mg/l Experimental result, Key study LC 50 (Oncorhynchus mykiss, 96 h): 12 mg/l Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	LL 50 (Pimephales promelas, 96 h): 8.2 mg/l Experimental result, Key study

Aquatic Invertebrates

Product:

No data available.

Specified substance(s):

Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, 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
Naphtha (petroleum), hydrotreated light	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study
Siloxanes and Silicones, di-Me	LC 50 (Water flea (Daphnia magna), 48 h): 44.5 mg/l Mortality
2-Propanone	LC 50 (Daphnia pulex, 48 h): 8,800 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
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	NOAEL (Daphnia magna, 48 h): 43 mg/l Experimental result, Key study LC 50 (Daphnia magna, 48 h): 90 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

Chronic hazards to the aquatic environment:

Fish

Product:

No data available.

Specified substance(s):

Hexane	NOAEL (Oncorhynchus mykiss): 2.8 mg/l QSAR QSAR, Key study
Naphtha (petroleum), hydrotreated light	EC 50 (Daphnia magna): 10 mg/l Other, Key study NOAEL (Daphnia magna): 2.6 mg/l Other, Key study
Heptane	NOAEL (Oncorhynchus mykiss): 1.284 mg/l QSAR QSAR, Key study

Solvent naphtha (petroleum), light aliph. NOAEL (Daphnia magna): 2.6 mg/l Other, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Hexane NOAEL (Daphnia magna): 4.888 mg/l QSAR QSAR, Key study

Naphtha (petroleum), hydrotreated light EC 50 (Daphnia magna): 10 mg/l Experimental result, Key study
NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Key study

2-Propanone LOAEL (Daphnia magna): 2,212 mg/l Experimental result, Key study
NOAEL (Daphnia magna): 2,212 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

1,2-Benzenedicarboxylic acid, 1,2-diethyl ester NOAEL (Daphnia magna): 25 mg/l Experimental result, Key study

Solvent naphtha (petroleum), light aliph. EC 50 (Daphnia magna): > 40 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):

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

Butane 100 % (385.5 h) Detected in water. Experimental result, Key study

Hexane 81 % Detected in water. Read-across based on grouping of substances (category approach), Key study

Naphtha (petroleum), hydrotreated light 90.35 % (28 d) Detected in water. Experimental result, Supporting study

2-Propanone 90.9 % (28 d) 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

1,2-Benzenedicarboxylic acid, 1,2-diethyl ester 94.6 % (28 d) Detected in water. Experimental result, Key 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

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
Naphtha (petroleum), hydrotreated light	Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study
2-Propanone	Haddock, adult, Bioconcentration Factor (BCF): 0.69 Aquatic sediment Experimental result, Not specified
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
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	Bluegill (Lepomis macrochirus), Bioconcentration Factor (BCF): 117 (Flow through)
Solvent naphtha (petroleum), light aliph.	Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.
Specified substance(s):	
Naphtha (petroleum), hydrotreated light	Log Kow: > 2.4 - < 5.7 23 °C Yes Experimental result, Key study Log Kow: 2.2 - 5.2 23 °C Yes Experimental result, Key study Log Kow: 2.2 - 6.1 23 °C Yes Experimental result, Key study

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Propane	No data available.
Butane	No data available.
Hexane	No data available.
Naphtha (petroleum), hydrotreated light	No data available.
Siloxanes and Silicones, di-Me	No data available.
2-Propanone	No data available.
Cyclohexane	No data available.
Heptane	No data available.
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	No data available.
Solvent naphtha (petroleum), light aliph.	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

Benzene

OSHA hazard(s)

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>
Propane	lbs. 100
Butane	lbs. 100
Hexane	lbs. 5000
Cyclopentane, methyl-	lbs. 100
2-Propanone	lbs. 5000
Cyclohexane	lbs. 1000
Heptane	lbs. 100
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	lbs. 1000
Benzene, dimethyl-	lbs. 100
Acetic acid, pentyl ester	lbs. 5000
Benzene, methyl-	lbs. 1000
Butanoic acid, ethyl ester	lbs. 100
Benzene, ethyl-	lbs. 1000
Acetic acid ethyl ester	lbs. 5000
Benzene	lbs. 10
Naphthalene	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
- Toxic to reproduction
- Specific Target Organ Toxicity - Single Exposure
- Specific Target Organ Toxicity - Repeated Exposure
- Aspiration Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Hexane		
2-Propanone		
Terpenes and Terpenoids, lemon-oil		

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Propane	lbs. 100
Butane	lbs. 100
Hexane	lbs. 5000
Cyclopentane, methyl-	lbs. 100
2-Propanone	lbs. 5000
Cyclohexane	lbs. 1000
Heptane	lbs. 100
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	lbs. 1000
Benzene, dimethyl-	lbs. 100
Acetic acid, pentyl ester	lbs. 5000
Benzene, methyl-	lbs. 1000
Butanoic acid, ethyl ester	lbs. 100
Benzene, ethyl-	lbs. 1000
Acetic acid ethyl ester	lbs. 5000
Benzene	lbs. 10
Naphthalene	lbs. 100
Terpenes and Terpenoids, lemon-oil	

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Propane	10000 lbs
Butane	10000 lbs
Hexane	10000 lbs
Naphtha (petroleum), hydrotreated light	10000 lbs
Siloxanes and Silicones, di-Me	10000 lbs
2-Propanone	10000 lbs
Cyclohexane	10000 lbs
Heptane	10000 lbs
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	10000 lbs
Solvent naphtha (petroleum), light aliph.	10000 lbs
Benzene, dimethyl-	10000 lbs
Acetic acid, pentyl ester	10000 lbs
Benzene, methyl-	10000 lbs
Benzene, ethyl-	10000 lbs
Acetic acid ethyl ester	10000 lbs
Benzene	10000 lbs
Naphthalene	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>
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
Benzene, methyl-	Developmental toxin. 03 2008
Benzene, ethyl-	Carcinogenic. 05 2011
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008
Naphthalene	Carcinogenic. 05 2011

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

<u>Chemical Identity</u>
Propane
Butane
Hexane
Naphtha (petroleum), hydrotreated light
Cyclopentane, methyl-
2-Propanone

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
Benzene

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
Propane
Butane

Hexane
Naphtha (petroleum), hydrotreated light
Cyclopentane, methyl-
2-Propanone

US. Rhode Island RTK

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

International regulations

Montreal protocol

Hexane
2-Propanone

Stockholm convention

Hexane
2-Propanone

Rotterdam convention

Hexane
2-Propanone

Kyoto protocol

Inventory Status:

Australia AICS:	Not in compliance with the inventory.
EINECS, ELINCS or NLP:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	Not in compliance with the inventory.
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.
Canada DSL Inventory List:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory

16. Other information, including date of preparation or last revision
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Issue Date:	10/02/2019
Revision Information:	No data available.
Version #:	1.1
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.