

1. Identification

Product identifier: TEC-A-LITH WHITE LITHIUM GREASE

Other means of identification

SDS number: RE1000038495

Recommended restrictions

Product use: Lubricant

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: Starfire
Address: 2570 Van Hook Avenue
Hamilton, OH 45015
Telephone: 888-258-8723
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol Category 1

Health Hazards

Aspiration Hazard Category 1

Environmental Hazards

Acute hazards to the aquatic environment Category 2

Chronic hazards to the aquatic environment Category 2

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Extremely flammable aerosol.
May be fatal if swallowed and enters airways.
Toxic 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. Avoid release to the environment.
Response:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/# Do NOT induce vomiting. Collect spillage.
Storage:	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Hazard(s) not otherwise classified (HNOC):	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Distillates (petroleum), hydrotreated light	64742-47-8	25 - <50%
Propane	74-98-6	10 - <20%
Heptane, branched, cyclic and linear	426260-76-6	2.5 - <5%
Heptane	142-82-5	1 - <5%
Naphtha (petroleum), hydrotreated light	64742-49-0	1 - <5%
Solvent naphtha (petroleum), light aliph.	64742-89-8	1 - <5%
Titanium oxide (TiO ₂)	13463-67-7	1 - <5%

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

4. First-aid measures

Ingestion:	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:	Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms:	No data available.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

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

Suitable (and unsuitable) extinguishing media

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

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.

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

Conditions for safe storage, including any incompatibilities: 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 2

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Distillates (petroleum), hydrotreated light - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2008)
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)
Distillates (petroleum), hydrotreated light	ST ESL	3,500 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	350 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
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 PEL	1,000 ppm 1,800 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA	1,000 ppm 1,800 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	TWA	1,000 ppm 1,800 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 PEL	300 ppm 1,350 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
Naphtha (petroleum), hydrotreated light	STEL	400 ppm 1,800 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
	TWA	100 ppm 400 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	REL	100 ppm 400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	ST ESL	3,500 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	350 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	100 ppm 400 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	ST ESL	3,500 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	350 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	100 ppm 400 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	400 ppm 1,800 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
Solvent naphtha (petroleum), light aliph.	REL	100 ppm 400 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA PEL	300 ppm 1,350 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
	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	400 ppm 1,600 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	500 ppm 2,000 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	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)
Heptane	STEL	500 ppm	US. ACGIH Threshold Limit Values (02 2012)
	TWA	400 ppm 1,600 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL	10,000 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	2,700 µg/m3	US. Texas. Effects Screening Levels (Texas

			Commission on Environmental Quality) (11 2016)
	ST ESL	2,400 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	Ceil_Time	440 ppm 1,800 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA PEL	400 ppm 1,600 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	STEL	500 ppm 2,000 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	AN ESL	660 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Titanium oxide (TiO2) - Total dust.	TWA	10 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Titanium oxide (TiO2) - Particulate.	ST ESL	50 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL	5 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Titanium oxide (TiO2)	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (2008)
Titanium oxide (TiO2) - Total dust.	TWA	10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium oxide (TiO2) - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Titanium oxide (TiO2) - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA PEL	10 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
Titanium oxide (TiO2) - Respirable fraction.	TWA PEL	5 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (01 2015)
Benzene, methyl-	STEL	150 ppm 560 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA PEL	10 ppm 37 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	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)
	STEL	150 ppm 560 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	Ceiling	300 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	20 ppm	US. ACGIH Threshold Limit Values (2008)
	Ceiling	500 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	AN ESL	1,200 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	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)
	ST ESL	4,500 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	STEL	150 ppm 580 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL	1,200 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	100 ppm 375 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	150 ppm 560 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	AN ESL	320 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
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)
	STEL	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2005)

	TWA A LV	0.5 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	AN ESL		1.4 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	0.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	25 ppm		US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	5 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	STEL	5 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA PEL	1 ppm		US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	ST ESL		170 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA	10 ppm		US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL		53 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	STEL	2.5 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	OSHA_ACT	0.5 ppm		US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	TWA	10 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	50 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	AN ESL		4.5 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	Ceiling	50 ppm		US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
Benzene, (1-methylethyl)-	REL	50 ppm	245 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm		US. ACGIH Threshold Limit Values (2008)
	PEL	50 ppm	245 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	ST ESL		650 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		130 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	TWA PEL	50 ppm	245 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2006)
	TWA	50 ppm	245 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	50 ppm	245 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	TWA	1 ppm		US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (03 2018)
	AN ESL		51 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		250 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
Benzene, ethyl-	TWA	100 ppm	435 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	125 ppm	545 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL		26,000 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		570 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	ST ESL		6,000 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	AN ESL		130 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (11 2016)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	30 ppm	130 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2013)
	STEL	125 ppm	545 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	20 ppm	US. ACGIH Threshold Limit Values (12 2010)
	TWA PEL	5 ppm 22 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (09 2013)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
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 (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene (S-Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
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: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

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

Skin Protection

Hand Protection: No data available.

Other: Wear suitable protective clothing.

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.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: Aerosols

Color: White

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 (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	4,826.3 - 6,205.3 hPa (20 °C)
Vapor density:	No data available.
Density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	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
Heptane, branched, cyclic and linear	LD 50: > 2,000 mg/kg
Heptane	LD 50 (Rat): > 5,000 mg/kg
Naphtha (petroleum), hydrotreated light	LD 50 (Rat): > 5,000 mg/kg
Solvent naphtha (petroleum), light aliph.	LD 50 (Rat): > 5,000 mg/kg
Titanium oxide (TiO ₂)	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
Heptane, branched, cyclic and linear	LD 50: > 2,000 mg/kg
Heptane	LD 50 (Rabbit): > 2,000 mg/kg
Naphtha (petroleum), hydrotreated light	LD 50 (Rabbit): > 3,750 mg/kg
Solvent naphtha (petroleum), light aliph.	LD 50 (Rabbit): > 2,000 mg/kg
Titanium oxide (TiO ₂)	LD 50: > 2,000 mg/kg

Inhalation

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

Specified substance(s):

Distillates (petroleum), hydrotreated light	LC 50: > 5 mg/l LC 50: > 20 mg/l
Propane	LC 50 (Mouse): 1,237 mg/l
Heptane, branched, cyclic and linear	LC 50: > 20 mg/l LC 50: > 5 mg/l

Heptane	LC 50 (Rat): > 29.29 mg/l
Naphtha (petroleum), hydrotreated light	LOAEL (Human): 2,400 mg/m3 LC 50 (Rat): > 7,630 mg/m3 LC 50: > 5 mg/l
Solvent naphtha (petroleum), light aliph.	LOAEL (Human): 4,320 mg/m3 LC 50: 5.6 mg/l LC 50: > 20 mg/l
Titanium oxide (TiO2)	LC 50 (Rat): > 6.82 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s):

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
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
Heptane	NOAEL (Rat(Male), Inhalation): 12,470 mg/m3 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
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
Titanium oxide (TiO2)	NOAEL (Rat(Male), Oral, 29 d): 24,000 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 50 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
Heptane	in vivo (Rabbit): Irritating Read-across based on grouping of substances (category approach), Key study
Titanium oxide (TiO2)	in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
Heptane	Rabbit, 24 - 72 hrs: Not irritating
Naphtha (petroleum), hydrotreated light	Rabbit, 24 - 72 hrs: Not irritating
Solvent naphtha (petroleum), light aliph.	Rabbit: Not irritating
Titanium oxide (TiO ₂)	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
Heptane	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Naphtha (petroleum), hydrotreated light	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Solvent naphtha (petroleum), light aliph.	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Titanium oxide (TiO ₂)	Skin sensitization:, in vivo/in vitro (Guinea pig): Non sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

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

No carcinogenic components identified

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

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):

Heptane Narcotic effect. - Category 3 with narcotic effects.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	May be fatal if swallowed and enters airways.
Heptane, branched, cyclic and linear	May be fatal if swallowed and enters airways.
Heptane	May be fatal if swallowed and enters airways.
Naphtha (petroleum), hydrotreated light	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):

Distillates (petroleum), hydrotreated light	LC 50 (Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>), 96 h): 2.9 mg/l Mortality NOAEL (<i>Oncorhynchus mykiss</i> , 96 h): 2 mg/l Experimental result, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Heptane	LC 50 (Mozambique tilapia (<i>Tilapia mossambica</i>), 96 h): 375 mg/l Mortality
Naphtha (petroleum), hydrotreated light	LC 50 (96 h): 8.41 mg/l Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	LL 50 (<i>Pimephales promelas</i> , 96 h): 8.2 mg/l Experimental result, Key study
Titanium oxide (TiO ₂)	LC 50 (<i>Oncorhynchus mykiss</i> , 96 h): > 100 mg/l Experimental result, Weight of Evidence study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Distillates (petroleum), hydrotreated light	EC 50 (<i>Daphnia magna</i> , 24 h): 4.6 mg/l Experimental result, Key study NOAEL (<i>Daphnia magna</i> , 48 h): 0.3 mg/l Experimental result, Key study EC 50 (<i>Daphnia magna</i> , 48 h): 1.4 mg/l Experimental result, Key study
Heptane	EC 50 (<i>Daphnia magna</i> , 48 h): 1.5 mg/l Experimental result, Key study
Naphtha (petroleum), hydrotreated light	EC 50 (<i>Daphnia magna</i> , 48 h): 4.5 mg/l Experimental result, Key study
Solvent naphtha (petroleum), light aliph.	EC 50 (<i>Daphnia magna</i> , 48 h): 4.5 mg/l Experimental result, Key study NOAEL (<i>Daphnia magna</i> , 48 h): 0.5 mg/l Experimental result, Key study
Titanium oxide (TiO ₂)	LC 50 (<i>Daphnia magna</i> , 48 h): > 100 mg/l Experimental result, Weight of Evidence 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
Heptane	NOAEL (Oncorhynchus mykiss): 1.284 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
Solvent naphtha (petroleum), light aliph.	NOAEL (Daphnia magna): 2.6 mg/l Other, Key study

Aquatic Invertebrates

Product:	No data available.
Specified substance(s):	
Distillates (petroleum), hydrotreated light	NOAEL (Daphnia magna): 1.2 mg/l Experimental result, Key study EC 50 (Daphnia magna): 0.81 mg/l Experimental result, Key study
Heptane, branched, cyclic and linear	NOEC : < 1 mg/l estimation
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
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
Solvent naphtha (petroleum), light aliph.	EC 50 (Daphnia magna): > 40 mg/l Experimental result, Key study
Titanium oxide (TiO ₂)	NOAEL (Daphnia magna): 100 mg/l Experimental result, Supporting study

Toxicity to Aquatic Plants

Product:	No data available.
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Persistence and Degradability

Biodegradation

Product:	No data available.
Specified substance(s):	
Distillates (petroleum), hydrotreated light	61 % Detected in water. Experimental result, Supporting study
Propane	100 % (385.5 h) Detected in water. Experimental result, Key study 50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study
Heptane	70 % Detected in water. Experimental result, Key study
Naphtha (petroleum), hydrotreated light	90.35 % (28 d) Detected in water. Experimental result, Supporting study

Solvent naphtha (petroleum), light aliph. 89 % (28 d) Detected in water. Experimental result, Supporting study
94 % (25 d) Detected in water. Experimental result, Supporting study
74.76 % Detected in water. Experimental result, Supporting study
90.35 % (28 d) Detected in water. Experimental result, Supporting study
14.89 % 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):

Heptane Bioconcentration Factor (BCF): 552 Aquatic sediment Estimated by calculation, Key study

Naphtha (petroleum), hydrotreated light Bioconcentration Factor (BCF): 10 - 2,500 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

Titanium oxide (TiO₂) Oncorhynchus mykiss, Bioconcentration Factor (BCF): 34 - 352 Aquatic sediment Experimental result, 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

Distillates (petroleum), hydrotreated light No data available.

Propane No data available.

Heptane, branched, cyclic and linear No data available.

Heptane No data available.

Naphtha (petroleum), hydrotreated light No data available.

Solvent naphtha (petroleum), light aliph. No data available.

Titanium oxide (TiO₂) No data available.

Other adverse effects: Toxic 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

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

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

Chemical Identity

OSHA hazard(s)

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

CERCLA Hazardous Substance List (40 CFR 302.4):

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

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard
Immediate (Acute) Health Hazards
Flammable aerosol
Aspiration Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Distillates (petroleum), hydrotreated light		

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Distillates (petroleum), hydrotreated light	
Propane	lbs. 100
Heptane	lbs. 100
Benzene, methyl-	lbs. 1000
Benzene	lbs. 10
Benzene, (1-methylethyl)-	lbs. 5000
Benzene, ethyl-	lbs. 1000

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Distillates (petroleum), hydrotreated light	10000 lbs
Propane	10000 lbs
Heptane, branched, cyclic and linear	10000 lbs
Heptane	10000 lbs
Naphtha (petroleum), hydrotreated light	10000 lbs
Solvent naphtha (petroleum), light aliph.	10000 lbs
Titanium oxide (TiO ₂)	10000 lbs
Benzene, methyl-	10000 lbs
Benzene	10000 lbs
Benzene, (1-methylethyl)-	10000 lbs
Benzene, ethyl-	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

US. California Proposition 65

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

Titanium oxide (TiO2)	Carcinogenic. 09 2011
Benzene, methyl-	Developmental toxin. 03 2008
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008
Benzene, (1-methylethyl)-	Carcinogenic. 05 2011
Benzene, ethyl-	Carcinogenic. 05 2011

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

Chemical Identity

Distillates (petroleum), hydrotreated light
Propane
Naphtha (petroleum), hydrotreated light
Solvent naphtha (petroleum), light aliph.
Heptane
Titanium oxide (TiO2)

US. Massachusetts RTK - Substance List

Chemical Identity

Benzene

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Distillates (petroleum), hydrotreated light
Propane
Naphtha (petroleum), hydrotreated light
Solvent naphtha (petroleum), light aliph.
Heptane
Titanium oxide (TiO2)

US. Rhode Island RTK

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

International regulations

Montreal protocol

Distillates (petroleum),
hydrotreated light

Stockholm convention

Distillates (petroleum),
hydrotreated light

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Rotterdam convention

Distillates (petroleum),
hydrotreated light

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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:	On or 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:	On or in compliance with the inventory

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

Issue Date:	08/02/2019
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.