



Safety Data Sheet

Heavy Duty Citrus Industrial Parts Cleaner with D-Limonene

SECTION 1. IDENTIFICATION

Product Identifier	Heavy Duty Citrus Industrial Parts Cleaner with D-Limonene
Part number	TNDS8071
Product Family	Solvent blend
Recommended Use	Cleaner.
Restrictions on Use	None known.
Manufacturer	Shrader Canada Limited 830 Progress Court Oakville, Ontario Canada L6L 6K1 +1.905.847.0222 www.titanchemicals.com
Emergency Phone No.	Immediately contact your local poison control centre. CANUTEC, +1.613.996.6666, for transportation emergencies.

SECTION 2. HAZARD IDENTIFICATION

Classification

Flammable aerosol - Category 1; Gas under pressure - Compressed gas; Skin irritation - Category 2; Eye irritation - Category 2A; Specific target organ toxicity (single exposure) - Category 3; Aspiration hazard - Category 1

Label Elements



Danger

Extremely flammable aerosol.

Pressurized container: may burst if heated.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

May cause drowsiness or dizziness.

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.

Pressurized container: Do not pierce or burn, even after use.

Avoid breathing spray, vapours.

Wash hands and skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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Wear eye protection/face protection.

Wear protective gloves.

IF SWALLOWED: Immediately call a POISON CENTRE or doctor.

Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice or attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice or attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C (122 °F).

Store in a well-ventilated place.

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Distillates (petroleum), hydrotreated light naphthenic	64742-47-8	10-30		
Xylene (mixed isomers)	1330-20-7	10-20		
Naphtha (petroleum), hydrotreated light	64742-49-0	10-20		
Isopropanol	67-63-0	10-20		
Stoddard solvent	8052-41-3	10-20		
d-Limonene	5989-27-5	10-15		
Ethylbenzene	100-41-4	3-7		
Carbon dioxide	124-38-9	1-5		
n-Nonane	111-84-2	1-5		
1,2,4-Trimethylbenzene	95-63-6	0.1-1.0		

Notes

Any concentration shown as a range is due to batch processing.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice or attention.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Drink two glasses of water. Immediately call a Poison Centre or doctor.

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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam. Use water to keep non-leaking, fire-exposed containers cool.

Unsuitable Extinguishing Media

DO NOT use water or water-based extinguishing agents.

Specific Hazards Arising from the Product

Extremely flammable aerosol. Pressurized container: May burst if heated. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire hazard. May travel a considerable distance to a source of ignition and flash back to a leak or open container.

Very toxic carbon monoxide, carbon dioxide, and other unidentified organic compounds.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a protected, explosion-resistant location or maximum distance possible.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Eliminate all ignition sources if safe to do so. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Remove or isolate incompatible materials as well as other hazardous materials. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Contaminated absorbent poses the same hazard as the spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

It is good practice to: avoid breathing product; avoid skin and eye contact and wash hands after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash hands thoroughly after handling this material. Do not weld, cut or perform hot work on empty container until all traces of product have been removed.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated. Store at temperatures not exceeding: 40°C.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	TWA	STEL [C]	TWA	Ceiling
Ethylbenzene	20 ppm A3	Not established	100 ppm	Not established
n-Nonane	200 ppm	Not established	Not established	Not established
Xylene (mixed isomers)	100 ppm A4	150 ppm A4	435 mg/m ³	Not established
Naphtha (petroleum), hydrotreated light	400 ppm	500 ppm	2000 mg/m ³	Not established

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Distillates (petroleum), hydrotreated light naphthenic	200 mg/m3 A3	Not established	Not established	Not established
Isopropanol	200 ppm A4	400 ppm	980000 mg/m3	Not established
Stoddard solvent	100 ppm	Not established	Not established	Not established
1,2,4-Trimethylbenzene	25 ppm	Not established	Not established	Not established
Carbon dioxide	5000 ppm	Not established	Not established	Not established

Appropriate Engineering Controls

Sufficient mechanical ventilation to maintain exposures below the TLV. Under normal conditions of use, general ventilation should be satisfactory. Local ventilation is recommended if the product is misted or used in a confined space or if the TLV is exceeded. Make up air should always be supplied to balance air exhausted. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: nitrile rubber.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Clear colourless Aerosol.
Odour	Citrus
Odour Threshold	Not available
pH	Not applicable
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	< 9 °C (closed cup)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable (liquid).
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	> 1
Relative Density (water = 1)	0.79 at 15 °C
Solubility	Negligible in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	< 14 centistokes at 40°C (kinematic)
Other Information	
VOC %	96
Flame projection	> 100 cm
NFPA Classification	Aerosol, level 3

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials.

Incompatible Materials

Increased risk of fire and explosion on contact with: strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide. and other unidentified organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

Likely Routes of Exposure

Inhalation;
Skin contact;
Eye contact;
Ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Ethylbenzene	~ 4000 ppm (rat) (4-hour exposure)	3500 mg/kg (rat)	15380 mg/kg (rabbit)
n-Nonane	3200 ppm (rat) (4-hour exposure)	> 15000 mg/kg (rat)	Not available
Xylene (mixed isomers)	6350 ppm (male rat) (4-hour exposure)	3523 mg/kg (rat)	> 1700 mg/kg (rabbit)
Naphtha (petroleum), hydrotreated light	~ 25000 ppm (rat) (4-hour exposure)	> 15000 mg/kg (rat)	Not available
d-Limonene	Not available	4400 mg/kg (male rat)	> 5000 mg/kg (rabbit)
Isopropanol	17000 ppm (rat) (4-hour exposure)	4720 mg/kg (male rat)	12890 mg/kg (rabbit)
Stoddard solvent	> 5500 mg/m ³ (rat) (4-hour exposure)	> 5000 mg/kg (rat)	> 3000 mg/kg (rabbit)
1,2,4-Trimethylbenzene	18000 mg/m ³ (rat) (4-hour exposure)	5000 mg/kg (rat)	Not available

34% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (inhalation)

21% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (oral)

37% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (dermal)

Skin Corrosion/Irritation

Human experience and animal tests show moderate or severe irritation.

Serious Eye Damage/Irritation

Human experience and animal tests show serious eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

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Inhalation

At high concentrations may cause nose and throat irritation, depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

Skin Absorption

No information was located.

Ingestion

If large amounts are swallowed can cause effects as described for inhalation. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Conclusions cannot be drawn from the limited studies available.

Respiratory and/or Skin Sensitization

(d-Limonene) may cause an allergic reaction (skin sensitization) based on limited evidence. No information was located for respiratory sensitization.

Carcinogenicity

Chemical Name	ACGIH®	IARC	NTP	OSHA
Ethylbenzene	A3	Group 2B	Not Listed	Not Listed
Xylene (mixed isomers)	A4	Group 3	Not Listed	Not Listed
Naphtha (petroleum), hydrotreated light	Not Listed	Not evaluated	Not Listed	Not Listed
d-Limonene	Not Listed	Group 3	Not Listed	Not Listed
Distillates (petroleum), hydrotreated light naphthenic	A3	Group 3	Not Listed	Not Listed
Isopropanol	A4	Group 3	Not Listed	Not Listed

(Ethylbenzene) May cause cancer based on information for closely related chemicals.

Key to Abbreviations

ACGIH® = American Conference of Governmental Industrial Hygienists. A3 = Animal carcinogen. A4 = Not classifiable as a human carcinogen.

IARC = International Agency for Research on Cancer. Group 2B = Possibly carcinogenic to humans. Group 3 = Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity

Development of Offspring

(Xylene (mixed isomers)) may cause effects on the unborn child based on limited evidence.

No information was located for: Sexual Function and Fertility, Effects on or via Lactation, Germ Cell Mutagenicity, Interactive Effects

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS.

This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Empty containers retain product residue. Follow label warnings even if container appears to be empty. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container. Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1950	Aerosols	2.1	
US DOT	UN1950	Aerosols	2.1	
IMDG (Marine)	UN1950	Aerosols	2.1	
IATA (Air)	UN1950	Aerosols, flammable	2.1	

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Emergency Response 126 EmS F-D, S-U

Guide No.

Other Information ICAO/IATA PI Y203/203
Product may ship as LTD QTY if TDG, ICAO/IATA or IMDG Limited Quantity provisions are met.

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

CEPA - National Pollutant Release Inventory (NPRI)

(Ethylbenzene) Part 1A.

(Xylene (mixed isomers)) Part 1A.

(d-Limonene) Part 5.

(Distillates (petroleum), hydrotreated light naphthenic) Part 5.

(Isopropanol) Part 5.

(Stoddard solvent) Part 5.

(Naphthalene) Part 1A.

(1,2,4-Trimethylbenzene) Part 1A.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

CERCLA. (Ethylbenzene). (Xylene (mixed isomers)). (Naphthalene)

SARA Title III - Section 302: Not applicable.

SARA Title III - Section 313. (Ethylbenzene). (Xylene (mixed isomers)). (Naphthalene). (1,2,4-Trimethylbenzene)

California Proposition 65. (Ethylbenzene). (Naphthalene)

Massachusetts Right To Know: Not applicable.

New Jersey Right To Know. (Ethylbenzene). (n-Nonane). (Xylene (mixed isomers)). (Isopropanol). (Stoddard solvent). (Naphthalene). (1,2,4-Trimethylbenzene)

Pennsylvania Right To Know. (Ethylbenzene). (n-Nonane). (Xylene (mixed isomers)). (Isopropanol). (Stoddard solvent). (Naphthalene). (1,2,4-Trimethylbenzene)

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 2 Flammability - 4 Instability - 3

SDS Prepared By Regulatory Compliance

Phone No. 800.201.9486

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Key to Abbreviations ACGIH® = American Conference of Governmental Hygienists
CANUTEC = Canadian Transport Emergency Centre
CAS = Chemical Abstract Service
CCOHS = Canadian Centre for Occupational Health & Safety
CNS = Central nervous system
GESTIS = GESTIS Substance Database
HSDB® = Hazardous Substances Data Bank
IARC = International Agency for Research on Cancer
ICAO = International Civil Aviation Organization
IMDG = International Maritime Dangerous Goods Code
LC = Lethal concentration
LC = Lethal dose
NFPA = National Fire Protection Association
NTP = National Toxicology Program
OSHA = US Occupational Safety and Health Administration
PPM = Parts per million
RTECS® = Registry of Toxic Effects of Chemical Substances
STEL = Short term exposure limit
TDG = Transportation of Dangerous Goods Regulations (Canada)
TWA = Time weighted average

References Material safety data sheet from manufacturer.
CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).
Registry of Toxic Effects of Chemical Substances (RTECS®) database. Accelrys, Inc. Available from Canadian Centre for Occupational Health and Safety (CCOHS).
ECHA - European Chemical Agency, Classification and Labelling Inventory
GESTIS Substance Database
OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2015.

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