

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Issue date: 12/3/2015 Revision date: 1/11/2022

Version: 1.3

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Odourized Propane
Product code : Not available

Synonyms : Propane HD-5, Propane commercial, Liquified Petroleum Gas (LPG), C3H8, odorized propane,

stenched propane, automotive propane

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Petroleum distillate.

1.3. Supplier

Distributor

NGL Supply Co., Ltd. 1420, 225 - 6th Avenue SW Calgary, Alberta T2P 1N2

T 403-265-1977

Distributor

NGL Supply Terminal Company 720 South Colorado Blvd. Suit 720N

Denver, CO 80246 - USA

T 303-839-1806

1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300;

ERAC Emergency Response 1-800-265-0212

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Flam. Gas 1 Press. Gas (Liq.) Simple Asphy

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS)





Signal word (GHS) : Danger

Hazard statements (GHS) : Extremely flammable gas.

Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation

Precautionary statements (GHS) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

Eliminate all ignition sources if safe to do so.

Protect from sunlight. Store in a well-ventilated place.

2.3. Other hazards which do not result in classification

No additional information available

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2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Propane	Propane Normal propane / PROPANE / n-Propane / R290	CAS-No.: 74-98-6	80 – 100
Propene	Propene Propylene / 1-Propene / n-Propene / 1-Propylene / Prop-1-ene	CAS-No.: 115-07-1	0.5 – 5
Isobutane	Isobutane 2-Methylpropane / Propane, 2-methyl- / ISOBUTANE / R600a / isobutane	CAS-No.: 75-28-5	0.5 – 5
n-Butane	n-Butane Butane / BUTANE	CAS-No.: 106-97-8	0.5 – 5
Ethane	Ethane Ethyl hydride / ETHANE	CAS-No.: 74-84-0	0.1 – 1
Ethanethiol	Ethanethiol Ethyl mercaptan / Ethyl hydrosulfide / Ethyl sulfhydrate / Ethyl thioalcohol / Thioethanol / Thioethyl alcohol / ethanethiol	CAS-No.: 75-08-1	<0.1

^{*}Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after ingestion

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Thaw frosted parts with lukewarm water. Do not rub affected area. If irritation occurs, flush skin

with plenty of water. Get medical attention if irritation persists.

First-aid measures after eye contact

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

ntact : 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/attention.

: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause respiratory tract irritation. Intentional inhalation may cause respiratory irritation and central nervous system effects (headaches, dizziness). May cause asphyxiation.

Symptoms/effects after skin contact : Not a normal route of exposure. May cause frostbite burns to the skin. Symptoms/effects after eye contact : Not a normal route of exposure. Causes frostbite burns to the eyes.

Symptoms/effects after ingestion : Not a normal route of exposure.

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4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Powder. Water spray. Foam. Carbon dioxide.

Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Extremely flammable gas. Products of combustion may include, and are not limited to: oxides of

carbon

Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed

containers, spreading fire and increasing risk of burns and injuries.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition

sources if safe to do so. Fight fire remotely due to the risk of explosion. Do not direct water at

souce of leak or at safety devices; icing may occur.

Protection during firefighting : Containers may explode when heated. Use water s

: Containers may explode when heated. Use water spray to keep fire-exposed containers cool. For large fires, flood fire area with large quantities of water, while knocking down vapours with water fog. Vapours may be heavier than air and may travel along the ground to a distant ignition source and flash back. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear)

and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

: Use special care to avoid static electric charges. Eliminate every possible source of ignition. Ruptured cylinders may rocket. . Use personal protection recommended in Section 8. Isolate the

hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

General measures

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Eliminate sources of ignition. Stop leak if safe to do so. Do not flush into surface water or sewer

system. Wear recommended personal protective equipment.

Methods for cleaning up : Provide ventilation. Keep upwind. Evacuate area and remove ignition sources.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Keep away from

sources of ignition - No smoking.

Precautions for safe handling : Keep away from sources of ignition. - No smoking. Take precautionary measures against static

discharge. Use explosion-proof equipment. Use only non-sparking tools. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Use only in well-ventilated areas. When using do not eat, drink or smoke. Avoid contact with skin and eyes. Handle and open

container with care.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep out of the reach of children. Store away from direct sunlight or other heat sources. Keep

cool. Keep container tightly closed. Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Odourized Propane	Odourized Propane	
No additional information available		
Propane (74-98-6)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Propane	
Remark (ACGIH)	TLV® Basis: Simple Asphyxiant	
ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content	
Regulatory reference	ACGIH 2020	
USA - OSHA - Occupational Exposure Limits		
Local name	Propane	
OSHA PEL TWA [1]	1800 mg/m³	
OSHA PEL TWA [2]	1000 ppm	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1	
USA - IDLH - Occupational Exposure Limits		
IDLH [ppm]	2100 ppm (10% LEL)	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	1800 mg/m³	
NIOSH REL TWA [ppm]	1000 ppm	
Ethanethiol (75-08-1)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA [ppm]	0.5 ppm	
USA - OSHA - Occupational Exposure Limits		
OSHA PEL C	25 mg/m³	

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Ethanethiol (75-08-1)		
OSHA PEL C [ppm]	10 ppm	
USA - IDLH - Occupational Exposure Limits		
IDLH [ppm]	500 ppm	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL C	1.3 mg/m³	
NIOSH REL C [ppm]	0.5 ppm	
Propene (115-07-1)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA [ppm]	500 ppm	
ACGIH chemical category	Not Classifiable as a Human Carcinogen	
Isobutane (75-28-5)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Isobutane	
ACGIH OEL STEL [ppm]	1000 ppm (EX - Explosion hazard)	
Remark (ACGIH)	TLV® Basis: CNS impair	
Regulatory reference	ACGIH 2021	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	1900 mg/m³	
NIOSH REL TWA [ppm]	800 ppm	
n-Butane (106-97-8)	n-Butane (106-97-8)	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL STEL [ppm]	1000 ppm (explosion hazard (Butane, isomers)	
USA - IDLH - Occupational Exposure Limits		
IDLH [ppm]	1600 ppm (>10% LEL)	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	1900 mg/m³	
NIOSH REL TWA [ppm]	800 ppm	
Ethane (74-84-0)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH chemical category	Simple asphyxiant See Appendix F: Minimal Oxygen Content	

8.2. Appropriate engineering controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below

recommended exposure limits.

Environmental exposure controls : Avoid release to the environment.

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8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves

Eye protection:

Safety glasses or goggles are recommended when using product.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Gas Appearance Clear. Colour Colourless Odour : Characteristic Odour threshold : No data available рΗ : Not applicable Melting point : No data available Freezing point : No data available Boiling point : ≈ -42 °C (44 F) : < -56 °C (68 F) Flash point Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) Extremely flammable gas. Vapour pressure : 600 - 39000 hPa at 20 C (68 F)

Relative vapour density at 20 °C : 1.55

Relative density : 0.506 – 0.583 at 15° C (59° F)

Solubility : No data available

Partition coefficient n-octanol/water : 2.3

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal storage conditions. Extremely flammable gas. Contains gas under pressure; may explode if heated.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Sparks. Heat. Incompatible materials. Sources of ignition.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.

Acute toxicity (dermal) : Not classified.

Acute toxicity (inhalation) : Not classified.

Odourized Propane	
LD50 oral rat	No data available
LD50 dermal rabbit	No data available
LC50 inhalation rat	> 20 mg/l/4h
Propane (74-98-6)	
LC50 inhalation rat	> 800000 ppm (Exposure time: 15 min)
Ethanethiol (75-08-1)	
LD50 oral rat	682 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	11.23 mg/l air Animal: rat, Animal sex: male, Remarks on results: other:
LC50 inhalation rat	4420 ppm/4h
ATE CA (oral)	682 mg/kg bodyweight
ATE CA (Gases (except aerosol dispensers and lighters))	4420 ppmv/4h
ATE CA (vapours)	11 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h
Propene (115-07-1)	
LC50 inhalation rat	> 65000 ppm/4h

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Isobutane (75-28-5)	
LC50 inhalation rat	> 800000 ppm (Exposure time: 15 min)
n-Butane (106-97-8)	
LC50 inhalation rat	658 g/m³ (Exposure time: 4 h)
ATE CA (vapours)	658 mg/l/4h
ATE CA (dust,mist)	658 mg/l/4h
Ethane (74-84-0)	
LC50 inhalation rat	> 800000 ppm/4h
Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	pH: Not applicable : Not classified. pH: Not applicable
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Not classified.
Propene (115-07-1)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
Ethanethiol (75-08-1)	
STOT-single exposure	May cause drowsiness or dizziness.
	: Not classified.
STOT-repeated exposure	
Ethanethiol (75-08-1)	
NOAEL (oral, rat, 90 days)	≥ 200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, vapour, 90 days)	0.55 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Aspiration hazard	: Not classified.
Odourized Propane	
Viscosity, kinematic	Not applicable
Symptoms/effects after inhalation	: May cause respiratory tract irritation. Intentional inhalation may cause respiratory irritation and
	central nervous system effects (headaches, dizziness). May cause asphyxiation.
Symptoms/effects after skin contact	: Not a normal route of exposure. May cause frostbite burns to the skin.
Symptoms/effects after eye contact	: Not a normal route of exposure. Causes frostbite burns to the eyes.
Symptoms/effects after ingestion	: Not a normal route of exposure.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

1	12.1. Toxicity	
Ε	Ecology - general : May cause long-term adverse effects in the aquatic environment.	
Ethanethiol (75-08-1)		
L	.C50 - Fish [1]	2.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

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Ethanethiol (75-08-1)	
EC50 - Crustacea [1]	90 – 280 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	0.09 – 0.28 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

Odourized Propane	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Odourized Propane		
Partition coefficient n-octanol/water	2.3	
Bioaccumulative potential	Not established.	
Propane (74-98-6)		
Partition coefficient n-octanol/water	2.3	
Propene (115-07-1)		
Partition coefficient n-octanol/water	≤ 2.8	
Isobutane (75-28-5)		
Isobutane (75-28-5)		
Isobutane (75-28-5) BCF - Fish [1]	1.57 – 1.97	
	1.57 – 1.97 2.88 (at 20 °C)	
BCF - Fish [1]		
BCF - Fish [1] Partition coefficient n-octanol/water		
BCF - Fish [1] Partition coefficient n-octanol/water n-Butane (106-97-8)	2.88 (at 20 °C)	

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on global warming : No known effects from this product.

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with

local, regional, national and/or international regulation. The generation of waste should be

avoided or minimized wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

SECTION 14: Transport information

In accordance with DOT / TDG

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14.1. UN number

DOT NA No : UN1075 UN-No. (TDG) : UN 1075

14.2. UN proper shipping name

Proper Shipping Name (DOT/TDG) : Petroleum gases, liquefied

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 2.1 Hazard labels (DOT) : 2.1



TDG

Transport hazard class(es) (TDG) : 2.1 Hazard labels (TDG) : 2.1



14.4. Packing group

Packing group (DOT) : Not applicable Packing group (TDG) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

: 150 kg

DOT

UN-No.(DOT) : UN1075

DOT Special Provisions (49 CFR 172.102) : T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the

applicable liquefied compressed gases are authorized to be transported in portable tanks in

accordance with the requirements of 173.313 of this subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx) : 306
DOT Packaging Non Bulk (49 CFR 173.xxx) : 304
DOT Packaging Bulk (49 CFR 173.xxx) : 314;315
DOT Quantity Limitations Passenger aircraft/rail (49 : Forbidden

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

DOT Vessel Stowage Location : E - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

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UN-No. (TDG) : UN1075 **ERAP Index** : 3000 Explosive Limit and Limited Quantity Index : 0.125 L Excepted quantities (TDG) : E0 Passenger Carrying Ship Index : 110 kg Passenger Carrying Road Vehicle or Passenger : Forbidden

Carrying Railway Vehicle Index

Emergency Response Guide (ERG) Number : 115

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

15.3. US State regulations

NFPA reactivity

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Revision date : 01/11/2022 Other information : None.

Prepared by : Nexreg Compliance Inc.

www.Nexreg.com



Full text of H-statements	
Flam. Gas 1	Flammable gases, Category 1
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Simple Asphy	Simple Asphyxiant

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary

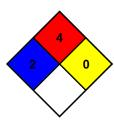
incapacitation or residual injury.

NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and

burn readily.

0 - Material that in themselves are normally stable, even under fire

conditions.



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Indication of changes:

SDS update.

SDS HazCom 2012 - WHMIS 2015 (Nexreg) 2021

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