

# **Propane Import**

Version 1.1 Revision Date 2015-11-23

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product information** 

Product Name : Propane Import

Use : Solvent, Odorant, Fuel

**Company** : Saudi Chevron Phillips Company

10001 Six Pines Drive The Woodlands, TX 77380

## **Emergency telephone:**

Health:

866.442.9628 (North America) 1.832.813.4984 (International)

Transport:

CHEMTREC 1.800.424.9300 (within USA and Canada) or 703.527.3887 (outside USA and

Canada)

Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316 EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department : Product Safety and Toxicology Group

E-mail address : SDS@CPChem.com Website : www.CPChem.com

#### **SECTION 2: Hazards identification**

## Classification of the substance or mixture

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

#### **Emergency Overview**

# Danger

Form: Compressed gas Physical state: Gaseous Color: Colorless Odor: odorless

(Repulsive if odorant has been added)

OSHA Hazards : Flammable Gas, Compressed Gas

Classification

: Flammable gases , Category 1

Gases under pressure, Compressed gas

#### Labeling

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Symbol(s)





Signal Word : Danger

Hazard Statements : H220: Extremely flammable gas.

H280: Contains gas under pressure; may explode if heated.

Precautionary Statements : Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces.

No smoking. **Response:** 

P377 Leaking gas fire: Do not extinguish, unless leak can be

stopped safely.

P381 Eliminate all ignition sources if safe to do so.

Storage:

P410 + P403 Protect from sunlight. Store in a well-ventilated

place.

Carcinogenicity:

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

ACGIH No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential carcinogen

by ACGIH.

## **SECTION 3: Composition/information on ingredients**

Synonyms : Propane

Molecular formula : C3H8

Component	CAS-No.	Weight %
Propane	74-98-6	90
Propylene	115-07-1	10

#### **SECTION 4: First aid measures**

General advice : Move out of dangerous area. Show this material safety data

sheet to the doctor in attendance.

If inhaled : If unconscious place in recovery position and seek medical

advice. If symptoms persist, call a physician.

In case of eye contact : Flush eyes with water as a precaution. Remove contact

lenses. Protect unharmed eye. Keep eye wide open while

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rinsing. If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear. Do not give milk or alcoholic

beverages. Never give anything by mouth to an unconscious

person. If symptoms persist, call a physician.

**SECTION 5: Firefighting measures** 

: -104 °C (-155 °F) Flash point

estimated

Autoignition temperature : 468 °C (874 °F)

Suitable extinguishing

media

: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing

media

: High volume water jet.

Special protective

equipment for fire-fighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

Further information : For safety reasons in case of fire, cans should be stored

separately in closed containments. Use a water spray to cool

fully closed containers.

Fire and explosion

protection

: Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames,

hot surfaces and sources of ignition.

Hazardous decomposition

products

: Carbon oxides.

#### **SECTION 6: Accidental release measures**

Personal precautions Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can

accumulate in low areas.

Environmental precautions : Prevent product from entering drains. Prevent further leakage

or spillage if safe to do so. If the product contaminates rivers

and lakes or drains inform respective authorities.

#### **SECTION 7: Handling and storage**

#### Handling

Advice on safe handling : For personal protection see section 8. Smoking, eating and

drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms.

Container may be opened only under exhaust ventilation hood.

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Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion

Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

#### **Storage**

Requirements for storage areas and containers

Prevent unauthorized access. No smoking. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

#### **SECTION 8: Exposure controls/personal protection**

## Ingredients with workplace control parameters

#### US

Ingredients	Basis	Value	Control parameters	Note
Propane	OSHA Z-1	TWA	1,000 ppm, 1,800 mg/m3	(b),
	OSHA Z-1-A	TWA	1,000 ppm, 1,800 mg/m3	
Propylene	ACGIH	TWA	500 ppm,	A4,

<sup>(</sup>b) The value in mg/m3 is approximate.

## Immediately Dangerous to Life or Health Concentrations (IDLH)

Substance name	CAS-No.	Control parameters	Update
Propane	74-98-6 Immediately Dangerous to Life or Health Concentration Value		1995-03-01
		2100 ppm	

#### **Engineering measures**

Adequate ventilation to control airborned concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

## Personal protective equipment

Respiratory protection : Wear a supplied-air NIOSH approved respirator unless

ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as:. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure

levels are not known, or other circumstances where airpurifying respirators may not provide adequate protection.

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purifying respirators may not provide adequate protection.

Hand protection : The suitability for a specific workplace should be discussed

A4 Not classifiable as a human carcinogen

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with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Eye wash bottle with pure water. Safety glasses.

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate:. Flame retardant antistatic protective clothing. Workers should wear antistatic

footwear.

Hygiene measures : Wash hands before breaks and at the end of workday.

## **SECTION 9: Physical and chemical properties**

## Information on basic physical and chemical properties

**Appearance** 

Form : Compressed gas

Physical state : Gaseous Color : Colorless

Odor : odorless (Repulsive if odorant has been added)

Odor Threshold : No data available

Safety data

Flash point :  $-104 \,^{\circ}\text{C} \, (-155 \,^{\circ}\text{F})$ 

estimated

Lower explosion limit : 2.1 %(V)

Upper explosion limit : 9.5 %(V)

Oxidizing properties : No

Autoignition temperature : 468 °C (874 °F)

Thermal decomposition : No data available

Molecular formula : C3H8

Molecular weight : 44.11 g/mol

pH : Not applicable

Pour point : No data available

Boiling point/boiling range : -42 °C (-44 °F)

Vapor pressure : 123.00 PSI

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at 21 °C (70 °F)

Relative density : 0.51

at 16 °C (61 °F)

Water solubility : Negligible

Partition coefficient: n-

octanol/water

: No data available

Solubility in other solvents : No data available

Viscosity, kinematic : No data available

Relative vapor density : 1.5

(Air = 1.0)

Evaporation rate : > 1

Percent volatile : > 99 %

## **SECTION 10: Stability and reactivity**

Chemical stability : This material is considered stable under normal ambient and

anticipated storage and handling conditions of temperature

and pressure.

## Possibility of hazardous reactions

Conditions to avoid : Heat, flames and sparks.

Materials to avoid : May react with oxygen and strong oxidizing agents, such as

chlorates, nitrates, peroxides, etc.

Thermal decomposition : No data available

Hazardous decomposition

products

: Carbon oxides

Other data : No decomposition if stored and applied as directed.

## **SECTION 11: Toxicological information**

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Acute oral toxicity : Negligible or unlikely exposure pathways

Acute inhalation toxicity

Propane : LC50: > 800000 ppm

Exposure time: 15 min

Species: Rat

Test atmosphere: gas

Propylene LC50: > 86 mg/l

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Exposure time: 4 h Species: Rat

Test atmosphere: gas Test substance: yes

**Propane Import** 

Acute dermal toxicity : Negligible or unlikely exposure pathways

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**Skin irritation** : No skin irritation

Contact with liquid or refrigerated gas can cause cold burns

and frostbite.

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**Eye irritation** : No eye irritation

Contact with liquid or refrigerated gas can cause cold burns

and frostbite.

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**Sensitization** : No data available.

Repeated dose toxicity

Propane : Species: Monkey

Application Route: Inhalation

Dose: 0, 750 ppm Exposure time: 90 day Number of exposures: daily

NOEL: > 750 ppm

Propylene Species: Rat, Male and female

Sex: Male and female Application Route: Inhalation

Dose: 625,1250,2500,5000, 10000 ppm

Exposure time: 14 wk Number of exposures: 6 Hr/d, 5 d/wk

NOEL: 10000 ppm

No adverse effect has been observed in chronic toxicity tests.

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Species: Mouse, Male and female

Sex: Male and female Application Route: Inhalation

Dose: 625,1250,2500,5000, 10000 ppm

Exposure time: 14 wk

Number of exposures: 6 Hr/d, 5 d/wk

NOEL: 10000 ppm

No adverse effect has been observed in chronic toxicity tests.

Species: Rat, Male and female

Sex: Male and female Application Route: Inhalation Dose: 0, 5000, 10000 ppm Exposure time: 103 wk

Number of exposures: 6 Hr/d, 5 d/wk Lowest observable effect level: 5000 ppm

Species: Mouse, Male and female

Sex: Male and female Application Route: Inhalation Dose: 0, 5000, 10000 ppm Exposure time: 103 wk

Number of exposures: 6 Hr/d, 5 d/wk Lowest observable effect level: 5000 ppm

#### Carcinogenicity

Propylene : Species: Rat

Dose: 0, 5000, 10000 ppm Exposure time: 103 wks

Number of exposures: 6 h/d, 5 d/wk Remarks: No evidence of carcinogenicity

Species: Mouse

Dose: 0, 5000, 10000 ppm Exposure time: 103 wks

Number of exposures: 6 h/d, 5 d/wk Remarks: No evidence of carcinogenicity

## Reproductive toxicity

Propane : Species: Rat

Sex: male and female Application Route: Inhalation Dose: 0, 1200, 4000, 12000 ppm

Exposure time: 6 weeks

Number of exposures: 6 hours/day, 7 days/week

Test period: 6 weeks Test substance: yes

Method: OECD Guideline 422 NOAEL Parent: 12000 ppm NOAEL F1: 12000 ppm

Propylene Species: Rat

Sex: male and female Application Route: Inhalation Dose: 0, 5000, 10000 ppm

Number of exposures: 6 hrs/d, 5 d/wk

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Test period: 103 wks

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NOAEL Parent: 10000 ppm

Species: Mouse Sex: male and female Application Route: Inhalation Dose: 0, 5000, 10000 ppm

Number of exposures: 6 hrs/d, 5 d/wk

Test period: 103 wks NOAEL Parent: 10000 ppm

**Developmental Toxicity** 

Propylene : Species: Rat

Application Route: Inhalation Dose: 0, 200, 1000, 10000 ppm Number of exposures: 6 hrs/d

Test period: 14 d

Method: OECD Guideline 414 NOAEL Teratogenicity: 10000 ppm NOAEL Maternal: 10000 pmm

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**Aspiration toxicity** : No aspiration toxicity classification.

**CMR effects** 

Propylene : Carcinogenicity: Animal testing did not show any carcinogenic

effects.

Mutagenicity: Tests on bacterial or mammalian cell cultures

did not show mutagenic effects.

Teratogenicity: Animal testing did not show any effects on

fetal development.

Reproductive toxicity: Animal testing did not show any effects

on fertility.

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Further information : No data available.

## **SECTION 12: Ecological information**

Elimination information (persistence and degradability)

Bioaccumulation

Propane : This material is not expected to bioaccumulate.

This substance is not considered to be persistent,

bioaccumulating and toxic (PBT).

This substance is not considered to be very persistent and

very bioaccumulating (vPvB).

Biodegradability : Not applicable

**Ecotoxicology Assessment** 

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Results of PBT assessment

Propane : This mixture contains no substance considered to be

persistent, bioaccumulating and toxic (PBT)., This mixture contains no substance considered to be very persistent and

very bioaccumulating (vPvB).

Additional ecological

information

: No data available

## **SECTION 13: Disposal considerations**

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : Do not dispose of waste into sewer. Do not contaminate

ponds, waterways or ditches with chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product.

Do not re-use empty containers. Do not burn, or use a cutting

torch on, the empty drum.

## **SECTION 14: Transport information**

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

## **US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**

UN1978, PROPANE, 2.1

#### IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

UN1978, PROPANE, 2.1, (-104 °C)

#### IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN1978, PROPANE, 2.1

#### ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

UN1978, PROPANE, 2.1, (B/D)

# RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

UN1978, PROPANE, 2.1 ((13))

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## ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

UN1978, PROPANE, 2.1

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

# **SECTION 15: Regulatory information**

**National legislation** 

SARA 311/312 Hazards : Fire Hazard

Sudden Release of Pressure Hazard

CERCLA Reportable

Quantity

: This material does not contain any components with a CERCLA

RQ.

SARA 302 Reportable

Quantity

: This material does not contain any components with a SARA

302 RQ.

SARA 302 Threshold

Planning Quantity

: No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 304 Reportable

Quantity

: This material does not contain any components with a section

304 EHS RQ.

: The following components are subject to reporting levels SARA 313 Ingredients

established by SARA Title III, Section 313:

: Propylene - 115-07-1

## Clean Air Act

Ozone-Depletion

Potential

: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR

82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air

Act Section 12 (40 CFR 61).

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The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

: Propane - 74-98-6 Propylene - 115-07-1

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Propylene - 115-07-1

# **US State Regulations**

Pennsylvania Right To Know

: Propane - 74-98-6 Propylene - 115-07-1

New Jersey Right To Know

: Propane - 74-98-6 Propylene - 115-07-1

California Prop. 65

Ingredients

: This product does not contain any chemicals known to the State

of California to cause cancer, birth, or any other reproductive

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defects.

## **Notification status**

Europe REACH : Not in compliance with the inventory

United States of America TSCA : On TSCA Inventory

Canada DSL : All components of this product are on the Canadian

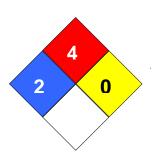
DSL

Australia AICS : On the inventory, or in compliance with the inventory New Zealand NZIoC : On the inventory, or in compliance with the inventory Japan ENCS : On the inventory, or in compliance with the inventory Korea KECI : On the inventory, or in compliance with the inventory Philippines PICCS : On the inventory, or in compliance with the inventory China IECSC : On the inventory, or in compliance with the inventory

## **SECTION 16: Other information**

NFPA Classification : Health Hazard: 2

Fire Hazard: 4 Reactivity Hazard: 0



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## **Further information**

Legacy SDS Number : CPC00530

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key or legend to abbreviations and acronyms used in the safety data sheet				
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%	
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level	
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency	
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health	
CNS	Central Nervous System	NTP	National Toxicology Program	
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals	
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level	
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration	
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration	
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit	
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances	
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic	
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act	
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit	
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.	
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value	
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average	
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act	
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials	
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System	
LC50	Lethal Concentration 50%			

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