

**Hydrogenated C3C4**

Version 1.2

Revision Date 2016-11-10

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product information**

Product Name : Hydrogenated C3C4

**Company**

: Qatar Chemical Company LTD (QChem)  
Amwal Tower, Omar Al Mukhtar St,  
Al-Dafna (Zone 61)  
PO Box 24646  
Doha, Qatar

SDS Requests: (+974) 4484-7110  
Technical Information: (+974) 4477-0047  
Responsible Party: Product Safety Group  
Email: MSDSInquiry@qchem.com.qa

**Local**

: Chevron Phillips Chemicals International N.V.  
Airport Plaza (Stockholm Building)  
Leonardo Da Vincilaan 19  
1831 Diegem  
Belgium

SDS Requests: (800) 852-5530  
Technical Information: (832) 813-4862  
Responsible Party: Product Safety Group  
Email:sds@cpchem.com

**Emergency telephone:****Health:**

866.442.9628 (North America)

1.832.813.4984 (International)

**Transport:**

CHEMTREC 800.424.9300 or 703.527.3887(int'l)

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

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**SECTION 2: Hazards identification****Classification of the substance or mixture  
REGULATION (EC) No 1272/2008**

Flammable gases, Category 1

H220:

Extremely flammable gas.

Gases under pressure, Compressed gas

H280:

Contains gas under pressure; may explode if heated.

**Label elements****Labeling (REGULATION (EC) No 1272/2008)**

Hazard pictograms

:



Signal Word

: Danger

Hazard Statements

: H220  
H280

Extremely flammable gas.

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.

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

Synonyms

: Hydrotreated Propane/Butane Mix  
C3/C4 Product

Molecular formula

: UVCB

**Mixtures****Hazardous ingredients**

Chemical name	CAS-No. EC-No. Index No.	Classification (REGULATION (EC) No 1272/2008)	Concentration [wt%]

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n-Butane	106-97-8 203-448-7 601-004-00-0	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280 Press. Gas Compr. Gas; H280	55 - 90
Propane	74-98-6 200-827-9 601-003-00-5	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280 Press. Gas Compr. Gas; H280	10 - 45

For the full text of the H-Statements mentioned in this Section, see Section 16.

**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 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**

- Flash point : -73 °C (-99 °F)
- Autoignition temperature : No data available
- Suitable extinguishing media : Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). 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.

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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. 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****SI**

Sestavine	Osnova	Vrednost	Parametri nadzora	Pripomba
n-Butane	SI OEL	MV	1.000 ppm, 2.400 mg/m3	
Propane	SI OEL	MV	1.000 ppm, 1.800 mg/m3	

**RU**

Компоненты	Основа	Величина	Параметры контроля	Заметка
n-Butane	RU OEL	ПДК	300 mg/m3	4, пары и/или газы
	RU OEL	ПДК разовая	900 mg/m3	4, пары и/или газы
Propane	RU OEL	ПДК	300 mg/m3	4, пары и/или газы
	RU OEL	ПДК разовая	900 mg/m3	4, пары и/или газы

4 4 класс - умеренно опасные

**RO**

Componente	Bază	Valoare	Parametri de control	Notă
Propane	RO OEL	TWA	778 ppm, 1.400 mg/m3	
	RO OEL	STEL	1.000 ppm, 1.800 mg/m3	

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**PT**

Componentes	Bases	Valor	Parâmetros de controle	Nota
n-Butane	PT OEL	VLE_CD	1.000 ppm,	afeção do SNC,
afeção do SNC afeção do sistema nervoso central				

**PL**

Składniki	Podstawa	Wartość	Parametry dotyczące kontroli	Uwaga
n-Butane	PL NDS	NDS	1.900 mg/m3	
	PL NDS	NDSch	3.000 mg/m3	
Propane	PL NDS	NDS	1.800 mg/m3	

**NO**

Komponenter	Grunnlag	Verdi	Kontrollparametrer	Nota
n-Butane	FOR-2011-12-06-1358	TWA	250 ppm, 600 mg/m3	
Propane	FOR-2011-12-06-1358	TWA	500 ppm, 900 mg/m3	

**MK**

Съставки	Основа	Стойност	Параметри на контрол	Бележка
n-Butane	MK OEL	MV	1.000 ppm, 2.400 mg/m3	
Propane	MK OEL	MV	1.000 ppm, 1.800 mg/m3	

**LV**

Sastāvdaļas	Bāze	Vērtība	Pārvaldības parametri	Piezīme
n-Butane	LV OEL	AER 8 st	300 mg/m3	
Propane	LV OEL	AER 8 st	100 mg/m3	
	LV OEL	AER īslaicīgā	300 mg/m3	

**IS**

Komponenter	Grunnlag	Verdi	Kontrollparametrer	Nota
n-Butane	IS OEL	TWA	500 ppm, 1.200 mg/m3	
Propane	IS OEL	TWA	1.000 ppm, 1.800 mg/m3	

**IE**

Ingredients	Basis	Value	Control parameters	Note
n-Butane	IE OEL	OELV - 8 hrs (TWA)	1.000 ppm,	
Propane	IE OEL	OELV - 8 hrs (TWA)	1.000 ppm,	Asphx,

Asphx Gaseous chemical substances which may not produce significant physiological effects in the exposed employee, but when present in high concentrations will act as simple asphyxiants

**HU**

Komponensek	Bázis	Érték	Ellenőrzési paraméterek	Megjegyzés
n-Butane	HU OEL	AK-érték	2.350 mg/m3	
	HU OEL	CK-érték	9.400 mg/m3	

**HR**

Sastojci	Temelj	Vrijednost	Nadzorni parametri	Bilješka
n-Butane	HR OEL	GVI	600 ppm, 1.450 mg/m3	F+,
	HR OEL	STEL	750 ppm, 1.810 mg/m3	F+,
	HR OEL	GVI	10 ppm, 22 mg/m3	1, 2, T, F+,
Propane	HR OEL	GVI	100 ppm, 400 mg/m3	2, 2, T,

- 1 Karc. kat. 1: tvari za koje je dokazano da su karcinogene za ljude  
 2 Karc. kat. 2: tvari koje su vjerojatno karcinogene za ljude  
 F+ Vrlo lako zapaljivo  
 T Otrovno

**GR**

Συστατικά	Βάση	Τιμή	Παράμετροι ελέγχου	Σημείωση
n-Butane	GR OEL	TWA	1.000 ppm, 2.350 mg/m3	
Propane	GR OEL	TWA	1.000 ppm, 1.800 mg/m3	

**GB**

Ingredients	Basis	Value	Control parameters	Note
n-Butane	GB EH40	TWA	600 ppm, 1.450 mg/m3	Carc,
	GB EH40	STEL	750 ppm, 1.810 mg/m3	Carc,

Carc Capable of causing cancer and/or heritable genetic damage. The identified substances include those which: - are assigned the risk phrases 'R45: May cause cancer'; 'R46: may cause heritable genetic damage'; 'R49: May cause cancer by inhalation' or - a substance or process listed in Schedule 1 of COSHH.

**FR**

Composants	Base	Valeur	Paramètres de contrôle	Note
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n-Butane	FR VLE	VME	800 ppm, 1.900 mg/m3	normal,
normal Valeurs limites indicatives				

**FI**

Aineosat	Peruste	Arvo	Valvontaa koskevat muuttujat	Huomaus
n-Butane	FI OEL	HTP-arvot 8h	800 ppm, 1.900 mg/m3	Liite 4,
	FI OEL	HTP-arvot 15 min	1.000 ppm, 2.400 mg/m3	Liite 4,
Propane	FI OEL	HTP-arvot 8h	800 ppm, 1.500 mg/m3	Liite 4,
	FI OEL	HTP-arvot 15 min	1.100 ppm, 2.000 mg/m3	Liite 4,

Liite 4 Happea syrjäyttämällä tukehduttavat kaasut

**ES**

Componentes	Base	Valor	Parámetros de control	Nota
n-Butane	ES VLA	VLA-ED	1.000 ppm,	gas
Propane	ES VLA	VLA-ED	1.000 ppm,	

**EE**

Komponendid, osad	Alused	Väärtus	Kontrolliparameetrid	Märkused
n-Butane	EE OEL	Piirnorm	800 ppm, 1.500 mg/m3	
Propane	EE OEL	Piirnorm	1.000 ppm, 1.800 mg/m3	

**DK**

Komponenter	Basis	Værdi	Kontrolparametre	Note
n-Butane	DK OEL	GV	500 ppm, 1.200 mg/m3	
Propane	DK OEL	GV	1.000 ppm, 1.800 mg/m3	

**DE**

Inhaltsstoffe	Grundlage	Wert	Zu überwachende Parameter	Bemerkung
n-Butane	DE TRGS 900	AGW	1.000 ppm, 2.400 mg/m3	DFG,
Propane	DE TRGS 900	AGW	1.000 ppm, 1.800 mg/m3	DFG,

DFG Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission)

**CH**

Inhaltsstoffe	Grundlage	Wert	Zu überwachende Parameter	Bemerkung
n-Butane	CH SUVA	MAK-Wert	800 ppm, 1.900 mg/m3	
	CH SUVA	MAK-Wert	800 ppm, 1.900 mg/m3	
	CH SUVA	KZGW	3.200 ppm, 7.200 mg/m3	
Propane	CH SUVA	MAK-Wert	1.000 ppm, 1.800 mg/m3	NIOSH,
	CH SUVA	KZGW	4.000 ppm, 7.200 mg/m3	NIOSH,

NIOSH National Institute for Occupational Safety and Health

**BG**

Съставки	Основа	Стойност	Параметри на контрол	Бележка
n-Butane	BG OEL	TWA	1.900 mg/m3	
Propane	BG OEL	TWA	1.800 mg/m3	

**BE**

Bestanddelen	Basis	Waarde	Controleparameters	Opmerking
n-Butane	BE OEL	TGG 8 hr	1.000 ppm,	
	BE OEL	TGG 8 hr	1.000 ppm,	gas
Propane	BE OEL	TGG 8 hr	1.000 ppm,	
	BE OEL	TGG 8 hr	1.000 ppm,	gas

**AT**

Inhaltsstoffe	Grundlage	Wert	Zu überwachende Parameter	Bemerkung
n-Butane	AT OEL	TMW	800 ppm, 1.900 mg/m3	
	AT OEL	KZW	1.600 ppm, 3.800 mg/m3	
Propane	AT OEL	TMW	1.000 ppm, 1.800 mg/m3	
	AT OEL	KZW	2.000 ppm, 3.600 mg/m3	

**Engineering measures**

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

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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 air-purifying respirators may not provide adequate protection.
- Hand protection : The suitability for a specific workplace should be discussed 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, Liquid  
 Physical state : Gaseous  
 Color : Colorless  
 Odor : Odorless

**Safety data**

- Flash point : -73 °C (-99 °F)  
 Lower explosion limit : 1,9 %(V)  
 Upper explosion limit : 8,5 %(V)  
 Oxidizing properties : no

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Autoignition temperature	: No data available
Molecular formula	: UVCB
Molecular weight	: Not applicable
pH	: Not applicable
Pour point	: No data available
Boiling point/boiling range	: -0,56 °C (30,99 °F)
Vapor pressure	: 51,60 PSI at 37,78 °C (100,00 °F)
Relative density	: 0,584 at 15,6 °C (60,1 °F)
Water solubility	: Negligible
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Relative vapor density	: 1,2 (Air = 1.0)
Evaporation rate	: > 1
Percent volatile	: > 99 %

**SECTION 10: Stability and reactivity**

Reactivity	: No decomposition if stored and applied as directed.
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.
Hazardous decomposition products	: Carbon oxides
Other data	: No decomposition if stored and applied as directed.



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**SECTION 11: Toxicological information**

- Hydrogenated C3C4**  
**Acute oral toxicity** : Negligible or unlikely exposure pathways
- Hydrogenated C3C4**  
**Acute inhalation toxicity** : No data available
- Hydrogenated C3C4**  
**Acute dermal toxicity** : Negligible or unlikely exposure pathways
- Hydrogenated C3C4**  
**Skin irritation** : Contact with liquid or refrigerated gas can cause cold burns and frostbite.
- Hydrogenated C3C4**  
**Eye irritation** : Contact with liquid or refrigerated gas can cause cold burns and frostbite.
- Repeated dose toxicity**
- n-Butane : Species: Rat, Male and female  
Sex: Male and female  
Application Route: Inhalation  
Dose: 0, 1017, 4489 ppm  
Exposure time: 90 day  
Number of exposures: 6 hr/d, 5 d/wk  
NOEL: 4489 ppm
- Propane : Species: Monkey  
Application Route: Inhalation  
Dose: 0, 750 ppm  
Exposure time: 90 day  
Number of exposures: daily  
NOEL: > 750 ppm
- 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
- Hydrogenated C3C4**  
**Aspiration toxicity** : No aspiration toxicity classification.
- Hydrogenated C3C4**  
**Further information** : No data available.

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**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 : Expected to be biodegradable

**Ecotoxicology Assessment**

Results of PBT assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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.

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**US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**  
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1

**IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)**  
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1, (-73 °C)

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**  
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1

**ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))**  
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1, (B/D)

**RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))**  
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1

**ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)**  
UN1075, PETROLEUM GASES, LIQUEFIED, 2.1

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

**SECTION 15: Regulatory information****National legislation**

**Major Accident Hazard Legislation** : 96/82/EC Update:  
Extremely flammable  
8  
Quantity 1: 10 t  
Quantity 2: 50 t

**Notification status**

Europe REACH	:	Not in compliance with the inventory
United States of America (USA) 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	:	Not in compliance with the inventory
China IECSC	:	On the inventory, or in compliance with the inventory

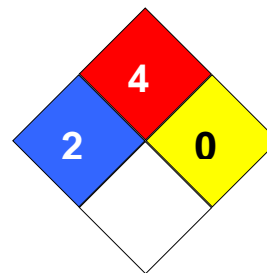
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**SECTION 16: Other information**

**NFPA Classification** : Health Hazard: 2  
Fire Hazard: 4  
Reactivity Hazard: 0

**Further information**

Legacy SDS Number : RLOC0004

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	TSCA	Toxic Substance Control Act

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	New Chemical Substances		
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%		

**Full text of H-Statements referred to under sections 2 and 3.**

H220                      Extremely flammable gas.  
H280                      Contains gas under pressure; may explode if heated.