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n-Dodecyl Mercaptan

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according to GB/T 16483 and GB/T 17519

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

Product information

Product Name Material Company	 n-Dodecyl Mercaptan 1126864, 1124172, 1122303, 1111421, 1086421, 1071323, 1086420, 1086419, 1021569, 1024819, 1024820, 1021558, 1021567, 1021568, 1021571, 1021572, 1021573, 1021574, 1021575, 1033862, 1032614, 1021566, 1021570 Chevron Phillips Chemical Company LP Specialty Chemicals 9500 Lakeside Blvd. The Woodlands, TX 77381
Local	 Chevron Phillips Chemicals (Shanghai) Corporation Room 1810-1812, Shanghai Mart, 2299 Yan An Road (W), Shanghai, PRC 200336 Tel: (86-21) 22157200
Emergency telephone:	
Asia: CHEMWATCH (Mexico CHEMTREC (South America SOS-(Argentina: +(54)-1159) EUROPE: BIG +32.14 Austria: VIZ +43 1 400 Belgium: 070 245 245 Bulgaria: +359 2 9154 Croatia: +359 2 9154 Croatia: +3851 2348 3 Cyprus: 1401 Czech Republic: Toxi Denmark: Danish Pois Estonia: BIG +32.14.5 Finland: 0800 147 11 France: ORFILA num Germany: BIG +32.14 Greece: (0030) 21077 Hungary: +36-80-201 Iceland: 543 2222 (24	national) .9300 or 703.527.3887(int'l) (+612 9186 1132) China: 0532 8388 9090 01-800-681-9531 (24 hours) Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600 0839431 4.584545 (phone) or +32.14583516 (telefax) 6 43 43 (24 hours/day, 7 days/week) 5 (24 hours/day, 7 days/week)
SDS Number:100000068622	1/13

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Italy: POISON CENTER MILAN – Azienda Ospedaliera Niguarda Ca` Grande Tel. +39 02 66101029; POISON CENTER ROME - Policlinico "Agostino Gemelli", Servizio di tossicologia clinica Tel. +39 06 3054343; POISON CENTER ROME - Ospedale Pediatrico Bambino Gesù Tel. +39 06 68593726; POISON CENTER ROME – Policlinico "Umberto I" Tel. +39 06 4997 8000; POISON CENTER FOGGIA - Azienda Ospedaliera Universitaria Riuniti Tel. +39 0881 732326; POISON CENTER NAPLES – Azienda Ospedaliera "Antonio Cardarelli" Tel. +39 081 7472870; POISON CENTER FLORENCE – Azienda Ospedaliera universitaria Careggi Tel. +39 055 7947819; POISON CENTER PAVIA - IRCCS Fondazione Salvatore Maugeri Tel. +39 0382 24444; POISON CENTER BERGAMO – Azienda Ospedaliera "Papa Giovanni XXIII" Tel. 800 883 300; POISON CENTER VERONA - Azienda Ospedaliera Universitaria integrata Tel. 800 011 858: Latvia: State Fire and Rescue Service, phone number: 112; Toxicology and Sepsis Clinic Poisoning and Drug Information Center, Hipokrāta 2, Riga, Latvia, LV-1038, phone number +371 67042473. (24 hours.) Liechtenstein: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Lithuania: +370 (85) 2362052 Luxembourg: (+352) 8002 5500 (24 hours/day, 7 days/week) Malta: +356 2395 2000 The Netherlands: NVIC: +31 (0)88 755 8000 Norway: 22 59 13 00 (24 hours/day, 7 days/week) Poland: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Portugal: CIAV phone number: +351 800 250 250 Romania: +40213183606 Slovakia: +421 2 5477 4166 Slovenia: Phone number: 112 Spain: National Emergency Telephone Number of Spanish Poison Centre: +34 91 562 04 20 (24 hours/day, 7 days/week) Sweden: 112 – ask for Poisons Information 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 **Emergency Overview**

GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2013)

Physical state: liquid	Color: Colorless Odor: Repulsive		
Hazards	: Causes severe skin burns and eye damage. Causes serious eye damage. May cause an allergic skin reaction. May be harmful if swallowed and enters airways. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.		
Classification			
	: Skin corrosion/irritation, Category 1C		
	Serious eye damage/eye irritation, Category 1		
	Serious eye damage/eye irritation, Category 1 Skin sensitization, Category 1		
	Serious eye damage/eye irritation, Category 1 Skin sensitization, Category 1 Aspiration hazard, Category 2		
	Serious eye damage/eye irritation, Category 1 Skin sensitization, Category 1		
Labeling	Serious eye damage/eye irritation, Category 1 Skin sensitization, Category 1 Aspiration hazard, Category 2 Short-term (acute) aquatic hazard, Category 1		

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Symbol(s)	
Signal Word	: Danger
Hazard Statements	 H305: May be harmful if swallowed and enters airways. H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H410: Very toxic to aquatic life with long lasting effects.
Precautionary Statements	 Prevention: P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P264: Wash skin thoroughly after handling. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304+P340+P310: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor. P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention. P362+P364: Take off contaminated clothing and wash it before reuse. P391: Collect spillage. Storage: P405: Store locked up. Disposal P501: Dispose of contents/ container to an approved waste disposal plant.
ECTION 3: Composition/inforr	nation on ingredients
Synonyms	: 1-dodecanethiol NDDM Normal Dodecyl Mercaptan dodecanethiol
Molecular formula	: C12H26S
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Chemical name			CAS-No. / EINECS-No	5.	Concentration [wt%]
n-Dodecyl Mercaptan			112-55-0		98.5
TION 4: First aid measures					
General advice	:		of dangerous area. Con afety data sheet to the o		
If inhaled	:		ious, place in recovery symptoms persist, call a		
In case of skin contact	:	wounds fr	e medical treatment is n om corrosion of the skir If on skin, rinse well with othes.	n heal slowly	and with
In case of eye contact	:	tissue dan rinse imm advice. C Remove c	bunts splashed into eyes nage and blindness. In ediately with plenty of w ontinue rinsing eyes du contact lenses. Protect while rinsing. If eye irr	the case of ater and ser ring transpo unharmed e	contact with eyes ek medical rt to hospital. ye. Keep eye
If swallowed	:	an uncons	viratory tract clear. Neve scious person. If sympto m immediately to hospit	oms persist,	
TION 5: Firefighting measu	res				
Flash point	:	133°C (27 Method: c			
Autoignition temperature	:	230°C (44	46°F)		
Suitable extinguishing media	:	Use water carbon dic	r spray, alcohol-resistan oxide.	t foam, dry o	chemical or
Unsuitable extinguishing media	:	High volur	ne water jet.		
Specific hazards during fire fighting	:	Do not allo courses.	ow run-off from fire fight	ing to enter	drains or water
Special protective equipment for fire-fighters	:	Wear self- necessary	contained breathing ap	paratus for f	irefighting if
Further information	:	must not b contamina	ntaminated fire extingui be discharged into drain ated fire extinguishing w be with local regulations	s. Fire resid ater must be	dues and
	:	Normal m	easures for preventive f	ire protectio	n.
Fire and explosion protection					

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Podecy Mercaptan	Revision Date 2025-06-2
Hazardous decomposition products	: Carbon oxides. Sulfur oxides.
ECTION 6: Accidental release	measures
Personal precautions	: Use personal protective equipment. Ensure adequate ventilation.
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.
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
ECTION 7: Handling and stora	age
Handling	
Advice on safe handling	: Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Storage	
Requirements for storage areas and containers	: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
ECTION 8: Exposure controls	/personal protection
	P
ot applicable Engineering measures	
Adequate ventilation to contr	rol airborned 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	:	If ventilation or other engineering controls are not adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure, a supplied-air NIOSH approved respirator may be appropriate. If exposure to harmful levels of airborne material may occur, a NIOSH approved respirator that provides protection may be appropriate, such as:. Air-Purifying Respirator for Dusts and Mists. A positive pressure, air- supplying respirator may be appropriate if there is potential for uncontrolled release, aerosolization, 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.
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:. Remove and wash contaminated clothing before re-use. Skin should be washed after contact. Complete head face and neck protection. Rubber apron. Footwear protecting against chemicals.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

Appearance	
Physical state Color Odor Odor Threshold	: liquid : Colorless : Repulsive : No data available
Safety data	
Flash point	: 133°C (271°F) Method: closed cup

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Lower explosion limit	: No data available
Upper explosion limit	: No data available
Oxidizing properties	: no
Autoignition temperature	: 230°C (446°F)
Molecular formula	: C12H26S
Molecular weight	: 202.44 g/mol
рН	: Not applicable
Melting point/freezing point	
Pour point	No data available
Boiling point/boiling range	: 270°C (518°F)
Vapor pressure	: 0.00 mbar at 25°C (77°F)
Relative density	: 0.85
Density	: 0.845 g/cm3 at 20°C (68°F)
Water solubility	: 0.0054 mg/l Method: OECD Test Guideline 105
Partition coefficient: n-	: No data available
octanol/water Viscosity, dynamic	: 2.98 cP at 25°C (77°F)
Relative vapor density	: 1 (Air = 1.0)
Evaporation rate	: No data available
Conductivity	: No data available
SECTION 10: Stability and reacti	vity
Reactivity	: Stable under recommended storage conditions.
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sion 3.21	Revision Date 2025-06
Chemical stability	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous rea	ictions
Hazardous reactions	: Hazardous reactions: Hazardous polymerization does not occur.
Conditions to avoid	: Heat, sparks, fire, and oxidizing agents.
Materials to avoid	: May react with oxygen and strong oxidizing agents, such as
Hazardous decomposition products	chlorates, nitrates, peroxides, etc. : Carbon oxides Sulfur oxides
Other data	: No decomposition if stored and applied as directed.
CTION 11: Toxicological infor	mation
Acute oral toxicity	
n-Dodecyl Mercaptan	: LD50: > 5,000 mg/kg Species: Rat Sex: male
Acute inhalation toxicity	
n-Dodecyl Mercaptan	 : > 3.10 mg/l Exposure time: 4.5 h Species: Rat Sex: male and female Test atmosphere: vapor Method: OECD Test Guideline 403 Information given is based on data obtained from similar substances.
Acute dermal toxicity	
n-Dodecyl Mercaptan	: LD50: > 2,000 mg/kg Species: Rat Sex: male Method: OECD Test Guideline 402
Skin irritation	
n-Dodecyl Mercaptan	: Corrosive after 1 to 4 hours of exposure
	Corrosive after 1 to 4 hours of exposure
Eye irritation	
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n-Dodecyl Mercaptan	: Irreversible effects on the eye
Sensitization	
n-Dodecyl Mercaptan	: The product is a skin sensitizer, sub-category 1A.
Repeated dose toxicity	
n-Dodecyl Mercaptan	: Species: Rat Application Route: Inhalation Dose: 0, 0.43, 1.6, 7.3 ppm Exposure time: 4 wk NOEL: 0.01 mg/l 1.7 ppm Lowest observable effect level: 0.06 mg/l 7.3 ppm Target Organs: Skin
	Species: Dog Application Route: Inhalation Dose: 0, 0.44, 1.7, 7.7 ppm Exposure time: 4 wk NOEL: 1.7 ppm Lowest observable effect level: 7.7 ppm
Genotoxicity in vitro	
n-Dodecyl Mercaptan	: Test Type: Ames test Result: negative
	Test Type: Sister Chromatid Exchange Assay Result: negative
	Test Type: Mouse lymphoma assay Result: negative
Genotoxicity in vivo	
n-Dodecyl Mercaptan	: Test Type: Mouse micronucleus assay Species: Mouse Dose: 1250, 2500, 5000 mg/kg
n-Dodecyl Mercaptan Aspiration toxicity	: May be harmful if swallowed and enters airways.
CMR effects	
n-Dodecyl Mercaptan	 Carcinogenicity: Not available 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.
n-Dodecyl Mercaptan Further information	: Solvents may degrease the skin.
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TION 12: Ecological infor	mation
Toxicity to fish	
n-Dodecyl Mercaptan	: LC50: > 100 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout)
Toxicity to daphnia and o	ther aquatic invertebrates
n-Dodecyl Mercaptan	: EC50: 1 - 10 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
Toxicity to algae	
n-Dodecyl Mercaptan	 EC50: 0.0145 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Growth inhibition Method: OECD Test Guideline 201
M-Factor dodecane-1-thiol	: M-Factor (Acute Aquat. Tox.) 10
	M-Factor (Chron. Aquat. Tox.) 10
Biodegradability	
n-Dodecyl Mercaptan	 Result: Not readily biodegradable. Method: OECD Test Guideline 301 Information given is based on data obtained from similar substances.
Bioaccumulation	
n-Dodecyl Mercaptan	: Bioconcentration factor (BCF): 228 - 781.2
Mobility	
n-Dodecyl Mercaptan	: After release, adsorbs onto soil.
Additional ecological information	: Very toxic to aquatic life with long lasting effects.
Ecotoxicology Assessme	ent
Short-term (acute) aquatic n-Dodecyl Mercaptan	
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n-Dodecyl Mercaptan	
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Long-term (chronic) aquatic n-Dodecyl Mercaptan	
SECTION 13: Disposal conside	erations
	pertains only to the product as shipped.
may meet the criteria of a ha other State and local regula regulated components may	I purpose or recycle if possible. This material, if it must be discarded, azardous waste as defined by US EPA under RCRA (40 CFR 261) or tions. Measurement of certain physical properties and analysis for be necessary to make a correct determination. If this material is aste, federal law requires disposal at a licensed hazardous waste
Product	: The product should not be allowed to enter drains, water courses or the soil. 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.
SECTION 14: Transport inform	ation
	s shown here are for bulk shipments only, and may not apply to ckages (see regulatory definition).
Goods Regulations for addit etc.) Therefore, the informa	nestic or international mode-specific and quantity-specific Dangerous tional shipping description requirements (e.g., technical name or names, tion shown here, may not always agree with the bill of lading shipping Flashpoints for the material may vary slightly between the SDS and the
	DEPARTMENT OF TRANSPORTATION) IQUIDS, N.O.S., (N-DODECYL MERCAPTAN), 8, III
UN1760, CORROSIVE L	NAL MARITIME DANGEROUS GOODS) LIQUID, N.O.S., (N-DODECYL MERCAPTAN), 8, III, (133 °C c.c.), (N-DODECYL MERCAPTAN)
	I R TRANSPORT ASSOCIATION) .IQUID, N.O.S., (N-DODECYL MERCAPTAN), 8, III
UN1760, CORROSIVE L	ANGEROUS GOODS BY ROAD (EUROPE)) IQUID, N.O.S., (N-DODECYL MERCAPTAN), 8, III, (E), AZARDOUS, (N-DODECYL MERCAPTAN)
DANGEROUS GOODS (EU 80,UN1760,CORROSIVE	CERNING THE INTERNATIONAL TRANSPORT OF JROPE)) LIQUID, N.O.S., (N-DODECYL MERCAPTAN), 8, III, AZARDOUS, (N-DODECYL MERCAPTAN)
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n-Dodecyl Mercaptan Version 3.21 Revision Date 2025-06-25 ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS) UN1760, CORROSIVE LIQUID, N.O.S., (N-DODECYL MERCAPTAN), 8, III, ENVIRONMENTALLY HAZARDOUS, (N-DODECYL MERCAPTAN) Other information : n- Dodecyl Mercaptan, S.T. 1, Cat. X Maritime transport in bulk according to IMO instruments **SECTION 15: Regulatory information** Classification and Labeling of : Primary label: Corrosive Material. **Commonly Used Dangerous** Chemical Substances **Notification status** Europe REACH This product is in full compliance according to REACH regulation 1907/2006/EC. Switzerland CH INV On the inventory, or in compliance with the inventory United States of America (USA) **On TSCA Inventory** 5 TSCA Canada DSL All components of this product are on the Canadian DSL Other AICS On the inventory, or in compliance with the inventory New Zealand NZIoC On the inventory, or in compliance with the inventory On the inventory, or in compliance with the inventory Japan ENCS 5 Korea KECI All substances in this product were registered, notified to be registered, or exempted from registration by CPChem through an Only Representative according to K-REACH regulations. Importation of this product is permitted if the Korean Importer of Record was included on CPChem's notifications or if the Importer of Record themselves notified the substances. Philippines PICCS On the inventory, or in compliance with the inventory 5 China IECSC On the inventory, or in compliance with the inventory Taiwan TCSI On the inventory, or in compliance with the inventory Other regulations Law on Prevention and Control of Environment : Pollution by Solid Waste, Provisions on the Safe Use of Chemicals at Workplace Other regulations Law on the Prevention and Control of Occupational Diseases **SECTION 16: Other information Further information** Legacy SDS Number : 460130 SDS Number:10000068622 12/13

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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.

K	ey or legend to abbreviations and a	cronyms use	d in the safety data sheet
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AIIC	Australian Inventory of Industrial Chemicals	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%	ATE	Acute toxicity estimate