

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

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

Product Name : Diacel® Adjustable Spacer Viscosifier  
Material : 1097192

Use : Oil Field Cement Spacer

**Company** : Chevron Phillips Chemical Company LP  
Drilling Specialties Company LLC  
10001 Six Pines Drive  
The Woodlands, TX 77380

**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: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090

EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

Mexico CHEMTREC 01-800-681-9531 (24 hours)

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

Argentina: +(54)-1159839431

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.

**Classification**


: Skin sensitization, Category 1  
Carcinogenicity, Category 1A

**Labeling**

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

Symbol(s) : 

Signal Word : Danger

Hazard Statements : H317: May cause an allergic skin reaction.  
H350: May cause cancer.

Precautionary Statements : **Prevention:**  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P363 Wash contaminated clothing before reuse.  
**Storage:**  
 P405 Store locked up.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity:**

**IARC** Group 1: Carcinogenic to humans  
Crystalline Silica 14808-60-7

**NTP** Known to be human carcinogen  
Crystalline Silica 14808-60-7

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

Molecular formula : Mixture

Component	CAS-No.	Weight %
Methyl ester of sulfonated tannin	Proprietary	5 - 15
Crystalline Silica	14808-60-7	0.1 - 2
Stannous Sulfate	7488-55-3	0.5 - 1

**SECTION 4: First aid measures**

General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

- |                         |   |  |
|-------------------------|---|--|
| If inhaled              | : | If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.   |
| In case of skin contact | : | If on skin, rinse well with water.   |
| 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            | : | Induce vomiting immediately and call a physician. Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital. |

**SECTION 5: Firefighting measures**

- |  |   |  |
|--|---|--|
| Flash point                                    | : | Not applicable   |
| Autoignition temperature                       | : | Not applicable   |
| Unsuitable extinguishing media                 | : | High volume water jet.   |
| Specific hazards during fire fighting          | : | Do not allow run-off from fire fighting to enter drains or water courses.  |
| Special protective equipment for fire-fighters | : | Wear self-contained breathing apparatus for firefighting if necessary.   |
| Further information                            | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Fire and explosion protection                  | : | Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.  |
| Hazardous decomposition products               | : | Carbon oxides. Sulfur oxides.  |

**SECTION 6: Accidental release measures**

- |                           |   |   |
|---------------------------|---|---|
| Personal precautions      | : | Use personal protective equipment. Avoid dust formation. Avoid breathing dust.  |
| 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   | : | Keep in suitable, closed containers for disposal.   |

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

SDS Number:100000014403

3/13

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

Advice on safe handling : Avoid formation of respirable particles. 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. 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 : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

**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.

Use : Oil Field Cement Spacer

**SECTION 8: Exposure controls/personal protection****Ingredients with workplace control parameters****US**

Components	Basis	Value	Control parameters	Note
Stannous Sulfate	OSHA Z-1	TWA	2 mg/m <sup>3</sup>	
	OSHA Z-1-A	TWA	2 mg/m <sup>3</sup>	
Crystalline Silica	ACGIH	TWA	2 mg/m <sup>3</sup>	Inhalable particulate matter
	OSHA Z-3	TWA	250mppcf / %SiO <sub>2</sub> +5	respirable
	OSHA Z-3	TWA	10mg/m <sup>3</sup> / %SiO <sub>2</sub> +2	respirable
	OSHA Z-3	TWA	0.1 mg/m <sup>3</sup>	Respirable fraction
	OSHA Z-1-A	TWA	0.1 mg/m <sup>3</sup>	respirable dust fraction
	ACGIH	TWA	0.025 mg/m <sup>3</sup>	A2, Respirable particulate matter
	OSHA Z-1	TWA	0.05 mg/m <sup>3</sup>	Respirable fraction
	OSHA Z-1	TWA	0.05 mg/m <sup>3</sup>	(respirable dust)
	OSHA CARC	PEL	0.05 mg/m <sup>3</sup>	respirable

A2 Suspected human carcinogen

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

Substance name	CAS-No.	Control parameters	Update
Stannous Sulfate	7488-55-3	Immediately Dangerous to Life or Health Concentration Value 100 mg/m <sup>3</sup>	1995-03-01
Crystalline Silica	14808-60-7	Immediately Dangerous to Life or Health Concentration Value 50 mg/m <sup>3</sup>	1995-03-01

**Engineering measures**

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

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

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: Air-Purifying Respirator for Dusts and Mists / P100. Use a positive pressure, air-supplying respirator 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. 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: Remove and wash contaminated clothing before re-use. Skin should be washed after contact. 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****Information on basic physical and chemical properties****Appearance**

- Form : Powder  
 Physical state : solid  
 Color : off-white, tan

**Safety data**

- Flash point : Not applicable
- Lower explosion limit : No data available
- Upper explosion limit : No data available

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

Oxidizing properties	: No
Autoignition temperature	: Not applicable
Molecular formula	: Mixture
Molecular weight	: Not applicable
pH	: Not applicable
Pour point	: No data available
Boiling point/boiling range	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Water solubility	: Slightly soluble
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Relative vapor density	: No data available
Evaporation rate	: No data available

**SECTION 10: Stability and reactivity**

<b>Reactivity</b>	: Stable at normal ambient temperature and pressure.
<b>Chemical stability</b>	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions</b>	
<b>Hazardous reactions</b>	: Further information: No decomposition if stored and applied as directed.
<b>Conditions to avoid</b>	: No data available.
<b>Hazardous decomposition products</b>	: Carbon oxides Sulfur oxides
<b>Other data</b>	: No decomposition if stored and applied as directed.

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

**SECTION 11: Toxicological information****Diacel® Adjustable Spacer Viscosifier**

**Acute oral toxicity** : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

**Diacel® Adjustable Spacer Viscosifier**

**Acute inhalation toxicity** : No data available

**Diacel® Adjustable Spacer Viscosifier**

**Acute dermal toxicity** : No data available

**Diacel® Adjustable Spacer Viscosifier**

**Skin irritation** : May irritate skin.

**Diacel® Adjustable Spacer Viscosifier**

**Eye irritation** : Product dust may be irritating to eyes, skin and respiratory system.

**Diacel® Adjustable Spacer Viscosifier**

**Sensitization** : Causes sensitization.

**Repeated dose toxicity**

Methyl ester of sulfonated tannin : Species: Rat, male  
Sex: male  
Application Route: oral gavage  
Dose: 100, 300, 1000 mg/kg  
Exposure time: 32 d  
Number of exposures: Daily  
NOEL: 1,000 mg/kg  
Method: OECD Guideline 422  
No adverse effects expected

Species: Rat, female  
Sex: female  
Application Route: oral gavage  
Dose: 100, 300, 1000 mg/kg  
Exposure time: 39 - 47 d  
Number of exposures: Daily  
NOEL: 1,000 mg/kg  
Method: OECD Guideline 422  
No adverse effects expected

**Genotoxicity in vitro**

Methyl ester of sulfonated tannin : Test Type: Chromosome aberration test in vitro  
Metabolic activation: with and without metabolic activation  
Method: OECD Guideline 473  
Result: negative

**Reproductive toxicity**

Methyl ester of sulfonated tannin : Species: Rat  
Sex: male

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

Application Route: oral gavage  
 Dose: 100, 300, 1000 mg/kg  
 Exposure time: 32 d  
 Number of exposures: Daily  
 Method: OECD Guideline 422  
 NOAEL Parent: 1,000 mg/kg  
 Fertility and developmental toxicity tests did not reveal any effect on reproduction.

Species: Rat  
 Sex: female  
 Application Route: oral gavage  
 Dose: 100, 300, 1000 mg/kg  
 Exposure time: 39 - 47 d  
 Number of exposures: Daily  
 Method: OECD Guideline 422  
 NOAEL Parent: 1,000 mg/kg  
 NOAEL F1: 1,000 mg/kg  
 Fertility and developmental toxicity tests did not reveal any effect on reproduction.

**CMR effects**

Crystalline Silica : Carcinogenicity: Human carcinogen.

**Diacel® Adjustable Spacer Viscosifier**

**Further information** : No data available.

**SECTION 12: Ecological information****Toxicity to fish**

Methyl ester of sulfonated tannin : LL50: > 1,800 mg/l  
 Exposure time: 96 h  
 Species: *Scophthalmus maximus* (Flatfish, Flounder)  
 Method: OECD Test Guideline 203

Stannous Sulfate > 0.0625 mg/l  
 Exposure time: 96 h  
 Species: *Cyprinodon variegatus* (sheepshead minnow)  
 static test Method: OECD Test Guideline 203

**Toxicity to daphnia and other aquatic invertebrates**

Methyl ester of sulfonated tannin : EL50: 73.2 mg/l  
 Exposure time: 48 h  
 Species: *Acartia tonsa* (Marine Copepod)  
 Method: ISO TC147/SC5/WG2

Stannous Sulfate EC50: 230 mg/l  
 Species: *Acartia tonsa* (Marine Copepod)  
 Method: ISO TC147/SC5/WG2

**Toxicity to algae**



**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

Methyl ester of sulfonated tannin : ErC50: > 100 mg/l  
Exposure time: 72 h  
Species: Desmodesmus subspicatus (green algae)  
Method: OECD Test Guideline 201

EbC50: 79 mg/l  
Exposure time: 72 h  
Species: Desmodesmus subspicatus (green algae)  
Method: OECD Test Guideline 201

Stannous Sulfate EC50: 0.55 mg/l  
Exposure time: 72 h  
Species: Skeletonema costatum (Marine Algae)  
Method: ISO 10253

**M-Factor**  
tin sulphate : M-Factor (Acute Aquat. Tox.) 1

Biodegradability : This material is not expected to be readily biodegradable.

Elimination information (persistence and degradability)

Bioaccumulation

Methyl ester of sulfonated tannin : This material is not expected to bioaccumulate.  
Stannous Sulfate : This material is not expected to bioaccumulate.

Mobility

Methyl ester of sulfonated tannin : No data available  
Stannous Sulfate : No data available

Additional ecological information : Harmful to aquatic life with long lasting effects.

**Ecotoxicology Assessment**

Short-term (acute) aquatic hazard : Harmful to aquatic life.  
Long-term (chronic) aquatic hazard : Harmful to aquatic life with long lasting effects.

**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 : The product should not be allowed to enter drains, water

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

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 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)**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

**Maritime transport in bulk according to IMO instruments**

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

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

**SARA 311/312 Hazards** : Respiratory or skin sensitization  
Carcinogenicity

CERCLA Reportable Quantity : Calculated RQ exceeds reasonably attainable upper limit.  
Formaldehyde

SARA 302 Reportable Quantity : Calculated RQ exceeds reasonably attainable upper limit.  
Formaldehyde

SARA 302 Threshold Planning Quantity : This material does not contain any components with a section 302 EHS TPQ.

SARA 304 Reportable Quantity : Calculated RQ exceeds reasonably attainable upper limit.  
Formaldehyde 50-00-0 100 lbs

SARA 313 Components : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**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 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**US State Regulations**

**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

Pennsylvania Right To Know

: Sodium Sulfate - 7757-82-6

California Prop. 65  
Components: WARNING! This product contains a chemical known in the  
State of California to cause cancer.

Crystalline Silica

14808-60-7

Quinoline

91-22-5

Formaldehyde

50-00-0

Naphthalene

91-20-3

**Notification status**

Europe REACH

: A substance or substances in this product is not  
registered or notified to be registered. Importation or  
manufacture of this product is still permitted provided  
that it does not exceed the REACH minimum threshold  
quantity of the non-regulated substances.

Switzerland CH INV

: Not in compliance with the inventory

United States of America (USA)  
TSCA

: All substances listed as active on the TSCA inventory

Canada DSL

: This product contains one or several components that  
are not on the Canadian DSL nor NDSL.

Australia AICS

: On the inventory, or in compliance with the inventory

New Zealand NZIoC

: Not in compliance with the inventory

Japan ENCS

: Not in compliance with the inventory

Philippines PICCS

: Not in compliance with the inventory

Taiwan TCSI

: Not in compliance with the inventory

Korea KECI

: A substance(s) in this product was not registered,  
notified to be registered, or exempted from registration  
by CPChem according to K-REACH regulations.  
Importation or manufacture of this product is still  
permitted provided the Korean Importer of Record has  
themselves notified the substance or the exported  
amount does not exceed the minimum threshold  
quantity of the non-registered substance(s).

China IECSC

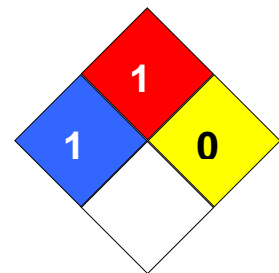
: Not in compliance with the inventory

**SECTION 16: Other information****NFPA Classification**

: Health Hazard: 1

Fire Hazard: 1

Reactivity Hazard: 0



**Diacel® Adjustable Spacer Viscosifier**

Version 2.3

Revision Date 2021-10-28

**Further information**

Legacy SDS Number : CPC00418

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%		