

## Safety Data Sheet

### Isopropanol 99%

Version 1.3

Revision Date: 09/03/2015

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** : Isopropanol 99%

**Product Use Description** : Alcohol solvent

**Manufacturer or supplier's details**

**Company** : Nexeo Solutions LLC

**Address** : 3 Waterway Square Place Suite 1000  
Woodlands, TX. 77380  
United States of America

**Emergency telephone number:**  
Health North America: 1-855-NEXEO4U (1-855-639-3648)  
Health International: 1-855-NEXEO4U (1-855-639-3648)  
Transport North America: CHEMTREC 800.424.9300

**Additional Information:** : Responsible Party: Product Safety Group  
E-Mail: msds@nexeosolutions.com  
SDS Requests: 1-855-429-2661  
SDS Requests Fax: 1-281-500-2370  
Website: www.nexeosolutions.com

#### SECTION 2. HAZARDS IDENTIFICATION

##### GHS Classification

Flammable liquids : Category 2

Eye irritation : Category 2A

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

##### GHS Label element

Hazard pictograms : 

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

Precautionary statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P233 Keep container tightly closed.

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P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/  
lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static  
discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/  
spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face  
protection.

#### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off  
immediately all contaminated clothing. Rinse skin with  
water/shower.

P304 + P340 + P312 IF INHALED: Remove person to  
fresh air and keep comfortable for breathing. Call a  
POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with  
water for several minutes. Remove contact lenses, if  
present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical  
advice/ attention.

P370 + P378 In case of fire: Use dry sand, dry chemical  
or alcohol-resistant foam to extinguish.

#### Storage:

P403 + P233 Store in a well-ventilated place. Keep  
container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

#### Disposal:

P501 Dispose of contents/ container to an approved  
waste disposal plant.

### Potential Health Effects

#### Carcinogenicity:

##### IARC

No component of this product present at levels greater  
than or equal to 0.1% is identified as probable, possible  
or confirmed human carcinogen by IARC.

##### ACGIH

No component of this product present at levels greater  
than or equal to 0.1% is identified as a carcinogen or  
potential carcinogen by ACGIH.

##### OSHA

No component of this product present at levels greater  
than or equal to 0.1% is identified as a carcinogen or  
potential carcinogen by OSHA.

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#### NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

#### Emergency Overview

Appearance	liquid
Colour	Clear, Colorless
Odour	alcohol-like
Hazard Summary	No information available.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

#### Hazardous components

CAS-No.	Chemical Name	Concentration (%)
67-63-0	Isopropyl alcohol	90 - 100

**Molecular formula** : (CH<sub>3</sub>)<sub>2</sub>CHOH

**Synonyms** : Isopropanol Anhydrous/Isopropyl Alcohol ACS Grade/Isopropyl Alcohol/TT I 735 Grade A/Velvasol 425/Value Grade Isopropanol, TT I 735A Grade B

### SECTION 4. FIRST AID MEASURES

**General advice** : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

**If inhaled** : Consult a physician after significant exposure.  
If unconscious place in recovery position and seek medical advice.

**In case of skin contact** : If on skin, rinse well with water.  
If on clothes, remove clothes.

**In case of eye contact** : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.

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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.

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#### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides

Specific extinguishing methods : Use a water spray to cool fully closed containers.

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.  
For safety reasons in case of fire, cans should be stored separately in closed containments.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for fire-fighting if necessary.  
Use personal protective equipment.

#### NFPA Flammable and Combustible Liquids Classification:

Flammable Liquid Class IB

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#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.

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	Beware of vapours accumulating to form explosive concentrations. Vapours 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.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

#### SECTION 7. HANDLING AND STORAGE

Advice on safe handling	: Avoid formation of aerosol. Do not breathe vapours/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. 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.
Conditions for safe storage	: No smoking. 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.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

CAS-No.	Components	Value type	Control parame-	Basis
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		(Form of exposure)	ters / Permissible concentration	
67-63-0	Isopropyl alcohol	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m <sup>3</sup>	NIOSH REL
		ST	500 ppm 1,225 mg/m <sup>3</sup>	NIOSH REL
		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA Z-1
		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA P0
		STEL	500 ppm 1,225 mg/m <sup>3</sup>	OSHA P0

#### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Isopropyl alcohol	67-63-0	Acetone	In urine	End of shift at end of work-week	40 mg/l	ACGIH BEI

#### Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.  
In the case of vapour formation use a respirator with an approved filter.

Hand protection  
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

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#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: Clear, Colorless
Odour	: alcohol-like
Odour Threshold	: No data available
pH	: 7 @ 20 - 25 °C (68 - 77 °F)
Freezing Point (Melting point/freezing point)	: -92 - -89 °C (-134 - -128 °F)
Boiling Point (Boiling point/boiling range)	: 82 - 82.3 °C (180 - 180.1 °F)
Flash point	: 12 - 13 °C (54 - 55 °F)
Evaporation rate	: 2 (Butyl Acetate = 1)
Flammability (solid, gas)	: No data available
Burning rate	: No data available
Upper explosion limit	: 12 - 19 %(V)
Lower explosion limit	: 2.0 - 3.3 %(V)
Vapour pressure	: 33 - 45.4 mmHg @ 20 °C (68 °F)
Relative vapour density	: 2.1 @ 15 - 20 °C (59 - 68 °F) (Air = 1.0)
Relative density	: 0.7855 - 0.79 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 0.79 g/cm <sup>3</sup> @ 20 °C (68 °F)
Bulk density	: No data available
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other sol-	: No data available

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vents

Partition coefficient: n-octanol/water : log Pow: 0.05 @ 25 °C (77 °F)

Auto-ignition temperature : 363 - 425 °C

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : 2.4 - 2.43 mPa.s @ 20 °C (68 °F)

Viscosity, kinematic : 2.6 mm<sup>2</sup>/s @ 25 °C (77 °F)

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No hazards to be specially mentioned.

Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.

Incompatible materials : acetaldehyde  
Aldehydes  
aluminum  
Alkali metals  
Amines  
Chlorine  
Ethylene oxide  
halogens  
Iron  
isocyanates  
Strong acids  
Strong oxidizing agents

Hazardous decomposition products : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).



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#### SECTION 11. TOXICOLOGICAL INFORMATION

##### Acute toxicity

###### Components:

###### **67-63-0:**

Acute oral toxicity : LD50 (Rat): 5,045 mg/kg

Acute inhalation toxicity : LC50 (Rat): 16000 ppm

Acute dermal toxicity : LD50 (Rabbit): 12,800 mg/kg

##### Skin corrosion/irritation

###### Product:

Result: Irritating to skin.

###### Components:

###### **67-63-0:**

Species: Rabbit

Result: Mild skin irritation

##### Serious eye damage/eye irritation

###### Product:

Result: Irritating to eyes.

###### Components:

###### **67-63-0:**

Species: Rabbit

Result: Irritating to eyes.

##### Respiratory or skin sensitisation

##### Germ cell mutagenicity

###### Components:

###### **67-63-0:**

Genotoxicity in vitro : Test Type: Ames test  
Test species: Salmonella typhimurium  
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test  
Test species: Mouse  
Method: OECD Test Guideline 474

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Result: negative

Germ cell mutagenicity-  
Assessment : Did not show mutagenic effects in animal experi-  
ments.

#### Carcinogenicity

##### Components:

##### **67-63-0:**

Species: Rat

NOAEL: 5,000 ppm

Method: OECD Test Guideline 451

Carcinogenicity - As-  
sessment : Not classifiable as a human carcinogen.

#### Reproductive toxicity

##### Components:

##### **67-63-0:**

Reproductive toxicity -  
Assessment : Animal testing did not show any effects on fertility.  
Did not show teratogenic effects in animal experi-  
ments.

#### STOT - single exposure

Product:No data available

##### Components:

67-63-0:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Central nervous system	May cause drowsi- ness or dizziness., The substance or mixture is classified as specific target organ toxicant, sin- gle exposure, cate- gory 3 with narcotic effects.	

#### STOT - repeated exposure

Product:No data available

##### Components:

**67-63-0:**No data available

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#### Aspiration toxicity

**Product:**

No aspiration toxicity classification

#### Further information

**Product:**

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

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## SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

**Components:**

**67-63-0:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h

Toxicity to algae : Remarks: No data available

#### Persistence and degradability

**Product:**

Biodegradability : Remarks: Readily biodegradable

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Other adverse effects

No data available

**Product:**

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

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Remarks	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).
Additional ecological information	: No data available

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#### SECTION 13. DISPOSAL CONSIDERATIONS

##### Disposal methods

Waste from residues	: Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.
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.

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#### SECTION 14. TRANSPORT INFORMATION

**IATA (International Air Transport Association):** UN1219, Isopropanol, 3, II, Flash Point: 12 - 13 °C (54 - 55 °F)

**IMDG (International Maritime Dangerous Goods):** UN1219, ISOPROPANOL, 3, II

**DOT (Department of Transportation):** UN1219, Isopropanol, 3, II

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#### SECTION 15. REGULATORY INFORMATION

<b>OSHA Hazards</b>	: Flammable liquid, Moderate skin irritant, Moderate eye irritant
<b>WHMIS Classification</b>	: B2: Flammable liquid D2B: Toxic Material Causing Other Toxic Effects

**EPCRA - Emergency Planning and Community Right-to-Know Act**

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#### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

#### SARA 311/312

##### Hazards

: Fire Hazard  
Immediate (Acute) Health Hazard

#### SARA 302

: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313

: 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

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (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).

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

67-63-0	Isopropyl alcohol	100 %
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#### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### US State Regulations

##### Massachusetts Right To Know

67-63-0	Isopropyl alcohol	90 - 100 %
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##### Pennsylvania Right To Know

67-63-0	Isopropyl alcohol	90 - 100 %
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##### New Jersey Right To Know

67-63-0	Isopropyl alcohol	90 - 100 %
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##### California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

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<b>United States TSCA Inventory</b>	:	y (positive listing) (On TSCA Inventory)
<b>Canadian Domestic Substances List (DSL)</b>	:	y (positive listing) (All components of this product are on the Canadian DSL.)
<b>Australia Inventory of Chemical Substances (AICS)</b>	:	y (positive listing) (On the inventory, or in compliance with the inventory)
<b>New Zealand. Inventory of Chemical Substances</b>	:	y (positive listing) (On the inventory, or in compliance with the inventory)
<b>Japan. ENCS - Existing and New Chemical Substances Inventory</b>	:	y (positive listing) (On the inventory, or in compliance with the inventory)
<b>Korea. Korean Existing Chemicals Inventory (KECI)</b>	:	y (positive listing) (On the inventory, or in compliance with the inventory)
<b>Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act</b>	:	y (positive listing) (On the inventory, or in compliance with the inventory)
<b>China. Inventory of Existing Chemical Substances in China (IECSC)</b>	:	y (positive listing) (On the inventory, or in compliance with the inventory)

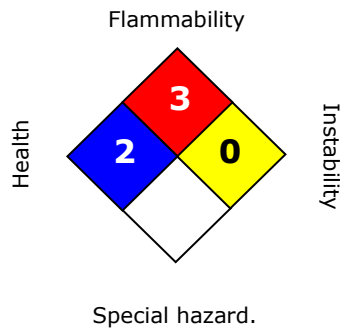
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SECTION 16. OTHER INFORMATION **Further information**

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 =Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661) MSDS@nexeosolutions.com.

**Legacy SDS:** 140000001030, R0001444

**Material number:**

16087525, 16076497, 16070429, 16067144, 16062664, 16062658, 16056234, 16056233, 16056232, 16056231, 16056230, 16056236, 16056235, 16056229, 16056228, 16061245, 16053485, 16052635, 16049720, 16030493, 16030184, 16020147, 16010158, 772812, 772811, 749963, 744289, 744288, 744287, 737212, 728214, 717444, 713300, 667236, 667235, 638919, 628350, 622971, 620243, 607424, 604761, 598538, 584582, 574318, 568108, 554273, 554170, 554086, 554045, 554336, 554300, 550689, 549773, 554335, 554291, 554272, 554257, 554206, 554169, 554149, 554085, 554371, 556671, 547315, 547297, 551361, 544760, 508619, 508618, 508414, 55018, 73136, 55939, 55835, 56756, 105079, 71262, 88592, 54882, 104163, 56760, 88703, 88700, 105097, 87779, 56758, 71396, 56752, 73132, 71401, 56759, 55942, 106250, 152309, 136796, 166706, 89678, 71489, 70529, 89675

<b>Key or legend to abbreviations and acronyms used in the safety data sheet</b>			
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 Substanc-	NFPA	National Fire Protection Agency

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	es List		
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%