SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier	**TOLUENE**
Other means of identification	
Product code	**ADV 122-5**
Recommended use	Industrial chemical

Manufacturer/Importer/Supplier/Distributor information

Company name	INTERNATIONAL AUTOBODY MARKETING GROUP
Address	1505 NORTH HAYDEN RD, SUITE 111 SCOTTSDALE, AZ 85257 UNITED STATES
Website	www.advantagerefinish.com
Telephone	1-87-REFINISH 480.451.4451
Emergency phone number	800-424-9300 ChemTrec EMERGENCY 24 Hrs.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	Category 2
Skin irritation	Category 2
Eye irritation	Category 2A
Reproductive toxicity	Category 2
Specific target organ toxicity - single exposure	Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure (Inhalation)	Category 2 (Auditory system, Eyes)
Aspiration hazard	Category 1

Hazard pictograms	
Signal word	Danger
Hazard statements	H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H361 Suspected of damaging fertility or the unborn child. H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
Precautionary statements	**Prevention:** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ eye protection/ face protection. **Response:** P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. P331 Do NOT induce vomiting. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction. **Storage:** 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.
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	colourless, transparent
Odour	sweet, pungent, hydrocarbon-like, aromatic, pleasant
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical Name	Concentration %
108-88-3	Toluene	90 - 100

SECTION 4. FIRST AID MEASURES

General advice	Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later.
If inhaled	Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

In case of skin contact	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
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 swallowed	Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	Alcohol-resistant foam Carbon dioxide (CO2) 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	No hazardous combustion products are known
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 firefighting if necessary.

NFPA Flammable and Combustible Liquids Classification:
Flammable Liquid Class IB

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. 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 re-sealed 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 (Form of exposure)	Control parameters / Permissible concentration	Basis
108-88-3	Toluene	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m3	NIOSH REL
		ST	150 ppm 560 mg/m3	NIOSH REL
		TWA	200 ppm	OSHA Z-2
		CEIL	300 ppm	OSHA Z-2
		Peak	500 ppm	OSHA Z-2
		TWA	100 ppm 375 mg/m3	OSHA P0
		STEL	150 ppm 560 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Toluene	108-88-3	Toluene	In blood	Prior to last shift of work-week	0.02 mg/l	ACGIH BEI
		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI
		o-Cresol	Urine	End of shift (As soon as possible after	0.3 mg/g Creatinine	ACGIH BEI

	expo- sure ceases)

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
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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Colour	colourless, transparent
Odour	sweet, pungent, hydrocarbon-like, aromatic, pleasant
Odour Threshold	1.74 - 5 ppm
pH	not applicable
Freezing Point (Melting point/freezing point)	-95 °C (-139 °F)
Boiling Point (Boiling point/boiling range)	109 - 111 °C (228 - 232 °F)
Flash point	4 - 7 °C (39 - 45 °F)
Evaporation rate	2 - 2.4

	butyl acetate=1
Flammability (solid, gas)	No data available
Burning rate	No data available
Upper explosion limit	6.7 - 8 %(V)
Lower explosion limit	1.2 - 1.4 %(V)
Vapour pressure	22.5 - 24 mmHg @ 20 °C (68 °F)
Relative vapour density	3.14
Relative density	0.87
Density	7.218 lb/gal @ 25 °C (77 °F)
Bulk density	No data available
Solubility(ies)	
Water solubility	soluble
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	536 °C
Thermal decomposition	No data available
Regulatory VOC (lbs/gal)	**7.25**
Regulatory VOC (g/l)	**870.00**
Actual VOC (lbs/gal)	**7.25**
Actual VOC (g/l)	**870.00**

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	Vapours may form explosive mixture with air.
Conditions to avoid	Extremes of temperature and direct sunlight. Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

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

Components:

108-88-3:

Acute oral toxicity	LD50 (rat, male): > 5,580 mg/kg
Acute inhalation toxicity	LC50 (rat, male and female): 28.1 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute dermal toxicity	LD50 (rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Product:

Result: Irritating to skin.

Components:

108-88-3:

Species: rabbit
Exposure time: 4 h
Result: Irritating to skin.

Serious eye damage/eye irritation

Product:

Result: Irritating to eyes.

Components:

108-88-3:

Species: rabbit

Result: Irritating to eyes.
Method: OECD Test Guideline 405

Respiratory or skin sensitisation

Components:

108-88-3:
Test Type: Maximisation Test (GPMT)
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.
GLP: yes

Germ cell mutagenicity

Components:

108-88-3:

Genotoxicity in vitro	Test Type: Mammalian cell gene mutation assay Test species: Mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
Genotoxicity in vivo	Test Type: Dominant lethal assay Test species: mouse (male) Application Route: inhalation (vapour) Exposure time: 6 h/d, 5 d/wk for 8 wks Dose: 0, 100, 400 ppm Method: OECD Test Guideline 478 Result: negative
Germ cell mutagenicity-Assessment	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

108-88-3:
Species: rat, (male and female)
Application Route: inhalation (vapour)
Exposure time: 103 wks
Dose: 0, 600, 1200 ppm
Frequency of Treatment: 6.5 h/d, 5 d/wk
NOAEL: No observed adverse effect level: 1,200 ppm

Method: OECD Test Guideline 453
Result: did not display carcinogenic properties
Symptoms: Erosion of nasal epithelium
GLP: yes

Carcinogenicity - Assessment	Not classifiable as a human carcinogen.

Reproductive toxicity

Components:

108-88-3:

Effects on fertility	Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 100, 500, 2000 ppm Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: 500 ppm General Toxicity F1: NOAEC: 500 ppm Fertility: NOAEC: 2,000 ppm Symptoms: Reduced maternal body weight gain. Reduced offspring weight gain. Method: OECD Test Guideline 416 Result: Animal testing did not show any effects on fertility. GLP: yes Test Type: Fertility Species: rat, male and female Application Route: inhalation (vapour) Dose: 0, 600, 1200 ppm Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: 600 ppm Symptoms: Decreased sperm count Result: Animal testing did not show any effects on fertility.
Effects on foetal development	Species: rat Application Route: inhalation (vapour) Dose: 0, 250, 750, 1500, 3000 ppm Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day General Toxicity Maternal: NOAEC: 750 ppm Developmental Toxicity: NOAEC: 750 ppm Symptoms: Maternal toxicity, Reduced body weight, Skeletal malformations. GLP: yes
Reproductive toxicity - Assessment	Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

STOT - single exposure

Product: No data available

Components:

108-88-3:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Central nervous system	May cause drowsiness or dizziness., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.	

STOT - repeated exposure

Product: No data available

Components:

108-88-3:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Auditory system, Eyes	May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.	

Repeated dose toxicity

Components:

108-88-3:

Species: rat, male and female
NOAEL: 300
Application Route: inhalation (vapour)
Exposure time: 6, 12, or 18 mths
Number of exposures: 6 h/d, 5 d/wk
Dose: 0, 30, 100, 300 ppm
Method: OECD Test Guideline 453

Repeated dose toxicity - Assessment : Causes skin irritation.

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

Components:

108-88-3:

Aspiration Toxicity - Category 1

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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

108-88-3:

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)): 5.5 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	EC50 (Ceriodaphnia dubia): 3.78 mg/l Exposure time: 48 h Test Type: Renewal
Toxicity to algae	EC50 (Chlorella vulgaris (Fresh water algae)): 134 mg/l Exposure time: 3 h Test Type: static test
Toxicity to bacteria	IC50 (Bacteria): 84 mg/l Exposure time: 24 h Test Type: Static
Ecotoxicology Assessment	
Acute aquatic toxicity	Toxic to aquatic life.
Chronic aquatic toxicity	Toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

108-88-3:

Biodegradability	Inoculum: Sewage Biodegradation: 100 % Remarks: Readily biodegradable

Bioaccumulative potential

Components:

108-88-3:

Partition coefficient: n-octanol/water	log Pow: 2.73

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
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	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	Dispose of in accordance with all applicable local, state and federal regulations.
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

IATA (International Air Transport Association): UN1294, TOLUENE, 3, II, Flash Point:4 - 7 °C(39 - 45 °F)

IMDG (International Maritime Dangerous Goods): UN1294, TOLUENE, 3, II

DOT (Department of Transportation): UN1294, TOLUENE, 3, II

SECTION 15. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Moderate skin irritant, Teratogen, Reproductive hazard

WHMIS Classification B2: Flammable liquid
D2A: Very Toxic Material Causing Other Toxic Effects
D2B: Toxic Material Causing Other Toxic Effects

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Toluene	108-88-3	1000	1000

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
Acute Health Hazard
Chronic Health Hazard

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

SARA 313 The following components are subject to reporting levels established by SARA Title III, Section 313:

108-88-3 Toluene 100 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

108-88-3	Toluene	100 %
100-41-4	Ethylbenzene	0.0999 %
71-43-2	Benzene	0.0999 %
98-82-8	Cumene	0.0004 %

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 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

108-88-3	Toluene	100 %
100-41-4	Ethylbenzene	0.0999 %
71-43-2	Benzene	0.0999 %
98-82-8	Cumene	0.0004 %

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

108-88-3	Toluene	100 %
100-41-4	Ethylbenzene	0.0999 %
71-43-2	Benzene	0.0999 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

108-88-3	Toluene	100 %
100-41-4	Ethylbenzene	0.0999 %
71-43-2	Benzene	0.0999 %

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

108-88-3	Toluene	100 %

US State Regulations

Massachusetts Right To Know

108-88-3	Toluene	90 - 100 %
71-43-2	Benzene	0 - 0.1 %

Pennsylvania Right To Know

108-88-3	Toluene	90 - 100 %
100-41-4	Ethylbenzene	0 - 0.1 %
71-43-2	Benzene	0 - 0.1 %

New Jersey Right To Know

108-88-3	Toluene	90 - 100 %

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

100-41-4	Ethylbenzene
71-43-2	Benzene
98-82-8	Cumene

WARNING: This product contains a chemical known to the State of California to cause birth defects or other

	reproductive harm.
108-88-3	Toluene
71-43-2	Benzene

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

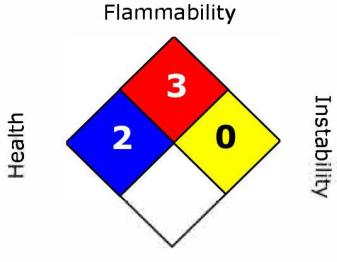
Switzerland. New notified substances and declared preparations		y (positive listing) (The formulation contains substances listed on the Swiss Inventory)
United States TSCA Inventory		y (positive listing) (On TSCA Invento-ry)
Canadian Domestic Substances List (DSL)		y (positive listing) (All components of this product are on the Canadian DSL.)
Australia Inventory of Chemical Substances (AICS)		y (positive listing) (On the inventory, or in compliance with the inventory)
New Zealand. Inventory of Chemical Substances		y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ENCS - Existing and New Chemical Substances Inventory		y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ISHL - Inventory of Chemical Substances (METI)		y (positive listing) (On the inventory, or in compliance with the inventory)
Korea. Korean Existing Chemicals Inventory (KECI)		y (positive listing) (On the inventory, or in compliance with the inventory)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)		y (positive listing) (On the inventory, or in compliance with the inventory)

China. Inventory of Existing Chemical Substances in China (IECSC)		y (positive listing) (On the inventory, or in compliance with the inventory)

SECTION 16. OTHER INFORMATION

Version 2.0
Revision Date 06/19/2019

NFPA:



Special hazard.

HMIS III:

HEALTH	**2***
FLAMMABILITY	**3**
PHYSICAL HAZARD	**0**

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

Our Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Legecy MSDS: R0000565

Material number:
16076583, 20054, 16052078, 16044492, 16042922, 16020146, 758386, 744411, 744290, 710730, 710841, 659495, 638920, 605418, 599094, 591594, 583688, 577548, 74292, 554035, 554297, 554199, 554034, 550273, 547202, 508613, 508487, 102358, 87255, 86312, 53763, 87252, 102690, 70140, 85974, 53211, 54494, 53551, 86521, 53216, 69928, 102899, 69593, 103631, 54061, 70083, 86461, 102680, 53543, 69918, 85966, 53699, 127683, 508226, 508225, 503157, 502489, 500113, 500040, 20058, 20055, 20052, 20051, 20050, 20049, 508283

Safety Data Sheet

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	NZloC	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	Philipines 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 Compositon, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50		Lethal Concentration 50%	