

# **SAFETY DATA SHEET**

### **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product identifier TOLUENE

Other means of identification

Product code ADV 122-1

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 tox-

icity - single exposure

Category 3 (Central nervous system)

Specific target organ tox-

icity - 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/ sprav.

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 antici-

pated 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 attend-

ance.

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.

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 per-

son.

Take victim immediately to hospital.

#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing Alcohol-resistant foam media 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 sepa-

rately. This must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regu-

lations.

For safety reasons in case of fire, cans should be

stored separately in closed containments.

Special protective equip-

ment for firefighters

Wear self-contained breathing apparatus for fire-

fighting 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 noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regula-

tions (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 discharg-

es.

Provide sufficient air exchange and/or exhaust in work

rooms.

Open drum carefully as content may be under pres-

sure.

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 PO
		STEL	150 ppm 560 mg/m3	OSHA PO

# **Biological occupational exposure limits**

Components	CAS-No.	Control parame- ters	Biological specimen	Sam- pling time	Permissi- ble con- centration	Basis
Toluene	108-88-	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 expo- sure 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

exposure 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 dis-

cussed with the producers of the protective gloves.

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 sol-

vents

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:** 

Method: Calculation method

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 acti-

vation

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. Re-

duced 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:

<b>Exposure routes:</b>	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:

<b>Exposure routes:</b>	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 - : Causes skin irritation.

Assessment

### **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 inverte-

brates

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 Sub-

stances

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 in-

formation

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	Calculated product
		RQ (lbs)	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 Fire Hazard

Hazards 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:

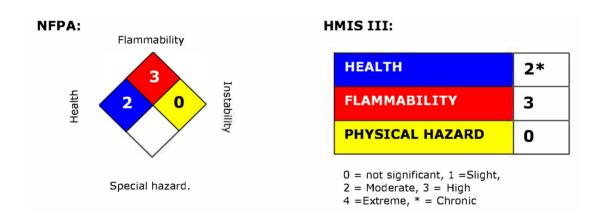
Switzerland. New notified substances and declared preparations	y (positive listing) (The formulation contains substances listed on the Swiss Inventory)
United States TSCA Inventory	y (positive listing) (On TSCA Invento- ry)
Canadian Domestic Substances List (DSL)	y (positive listing) (All components 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



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

Kev or le	gend to abbreviations and ac	ronvms us	ed in the safety data sheet
ACGIH	American Conference of Gov-	LD50	Lethal Dose 50%
	ernment Industrial Hygienists		
AICS	Australia, Inventory of Chem-	LOAEL	Lowest Observed Adverse Effect
	ical Substances		Level
DSL	Canada, Domestic Substanc-	NFPA	National Fire Protection Agency
	es List		
NDSL	Canada, Non-Domestic Sub-	NIOSH	National Institute for Occupational
	stances List		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	OSHA	Occupational Safety & Health Admin-
	Scenario Tool		istration
EOSCA	European Oilfield Specialty	PEL	Permissible Exposure Limit
	Chemicals Association		
EINECS	European Inventory of Exist-	PICCS	Philipines Inventory of Commercial
	ing Chemical Substances		Chemical Substances
MAK	Germany Maximum Concen-	PRNT	Presumed Not Toxic
	tration Values		
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 Reau-
			thorization Act.
IARC	International Agency for Re-	TLV	Threshold Limit Value
	search on Cancer		
IECSC	Inventory of Existing Chemi-	TWA	Time Weighted Average
	cal Substances in China		
ENCS	Japan, Inventory of Existing	TSCA	Toxic Substance Control Act
	and New Chemical Substanc-		
	es		
KECI	Korea, Existing Chemical In-	UVCB	Unknown or Variable Compositon,
	ventory		Complex Reaction Products, and
			Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials In-
			formation System
LC50		Lethal Cor	ncentration 50%