Safety Data Sheet

Version 1.1 Revision Date: 07/7/2015

1. Identification

Product identifier Thinner

> Product code 100

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name PBE Jobbers Warehouse

Address 2921 Syene Rd

Madison, WI 53713

Telephone 608-274-8797

Emergency phone number EMERGENCY 24 Hrs. 800-424-9300 ChemTrec

SECTION 2. HAZARDS IDENTIFICATION GHS Classification

: Category 2 Flammable liquids

Acute toxicity (Oral) : Category 3

: Category 3

Acute toxicity (Inhalation)

Acute toxicity (Dermal) : Category 3

Skin irritation : Category 2

Eye irritation : Category 2A

Germ cell mutagenicity : Category IB

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

single exposure

Specific target organ toxicity - : Category 1 (Eyes, Central nervous system)

Specific target organ toxicity

- single exposure

: Category 3 (Central nervous system)

Specific target organ toxicity exposure

repeated

: Category 2 (Auditory system, Eyes)

(Inhalation)

: Category 1 Aspiration hazard

GHS Label element

Hazard pictograms









Signal word Hazard : Danger

statements : H225 Highly flammable liquid and vapour.

H301 + H311 + H331 Toxic if swallowed, in contact with skin

or if inhaled

H304 May be fatal if swallowed and enters airways. H315

Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H340 May cause genetic defects. H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H370 Causes damage to organs (Eyes, Central nervous

system).

H373 May cause damage to organs (Auditory system, Eyes)

through prolonged or repeated exposure if inhaled.

Precautionary statements

: Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been

read and understood.

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. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ eye protection/ face protection. P281 Use personal protective equipment as required.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P311 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307 + P311 IF exposed: Call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

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

P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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 Group 2B: Possibly carcinogenic to humans

64742 -49-0 Naphtha (pet), hydrotreated

lt

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NTP aliph.

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.

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.

Emergency Overview

Appearance	liquid
Colour	clear, colourless
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical Name	Concentration (%)
67-56-1	Methanol	30 - 50
108-88-3	Toluene	30 - 50
67-64-1	Acetone	10 - 20
64742-49-0	Naphtha (pet), hydrotreated It	0 -20
64742-89-8	Solvent naphtha (pet), It aliph.	0 -20
68410-97-9		0 -20
	Distillates, pet, It dist hydrotreat process, low-boil	
142-82-5	Heptane	0.1 - 1

Special Notes: : Functionally equivalent petroleum streams may be

found in this preparation at varying concentrations.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in atten-

dance.

Symptoms of poisoning may appear several hours later.

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 skin irritation persists, call a physician.

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.

If swallowed : Keep respiratory tract clear.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam

Carbon dioxide (C02)

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 wa-

ter 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 equip-: Wear self-contained breathing apparatus for firefight- ment for firefighters ing 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 precau-

tions

|-

: 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 discharges. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and

national regulations.

Conditions for safe sto-: No smoking.

rage 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		Basis
		(Form of	Control parameters /	,
		exposure)	Permissible	
			concentration	
67-56-1	Methanol	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m3	NIOSH REL
		ST	250 ppm 325 mg/m3	NIOSH REL
		TWA	200 ppm 260 mg/m3	OSHAZ-1
		STEL	250 ppm 325 mg/m3	OSHA P0
		TWA	200 ppm 260 mg/m3	OSHA P0
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
67-64-1	Acetone	TWA	500 ppm	ACGIH

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<u> </u>		STEL	750 ppm	ACGIH
		TWA	250 ppm 590 mg/m3	NIOSH REL
		TWA	1,000 ppm 2,400 mg/m3	OSHA Z-I
		TWA	750 ppm 1,800 mg/m3	OSHA P0
		STEL	1,000 ppm 2,400 mg/m3	OSHA P0
64742-49-0	Naphtha (pet), hydrotreated It	TWA	500 ppm 2,000 mg/m3	OSHA Z-I
		TWA	400 ppm 1,600 mg/m3	OSHA P0
64742-89-8	Solvent naphtha (pet), It aliph.	TWA	500 ppm 2,000 mg/m3	OSHA Z-I
		TWA	400 ppm 1,600 mg/m3	OSHA P0
142-82-5	Heptane	TWA	85 ppm 350 mg/m3	NIOSH REL
		С	440 ppm 1,800 mg/m3	NIOSH REL
		TWA	500 ppm 2,000 mg/m3	OSHA Z-I
		TWA	400 ppm 1,600 mg/m3	OSHA P0
		STEL	500 ppm 2,000 mg/m3	OSHA P0

Biological occupational exposure limits

Components CAS-No Cont

Components	CAS-No.	Control parame - ters	Biological specimen	Sam pling time	Permissible concentration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGI H BEI
Toluene	3	Toluene	In blood	Prior to last shift of workweek	0.02 mg/l	ACGI H BEI
		Toluene	Urine	End of shift (As soon as	0.03 mg/l	ACGI H BEI

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				possible after expo sure ceases)		
		o-Cresol	Urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/g Creatinine	ACGI H BEI
Acetone	67-64-1	Acetone	Urine	End of shift (As soon as possible after exposure ceases)	50 mg/l	ACGI H 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

: Avoid contact with skin, eyes and clothing.

When using do not eat or drink. When using do not smoke.

Wash hands before breaks and immediately after handling

the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance liquid

Colour clear, colourless

Odour No data available

Odour Threshold No data available

pH No data available

Freezing Point No data available

56 - 150 °C (133 - 302 °F)

Boiling Point (Boiling point/boiling range)

Flash point $> = -20.00 \,^{\circ}\text{C} \, (-4.00 \,^{\circ}\text{F})$

Evaporation rate No data available

Flammability (solid, gas) No data available

Burning rate No data available

Upper explosion limit 7 - 36.5 %(V)

Lower explosion limit 0 . 8 - 6 %(V)

Vapour pressure 231 mmHg @ 25 °C (77 °F)

Calculated Vapor Pressure

Relative vapour density

No data available

Relative density 0.808 @ 20 °C (68 °F)

Density 0.808 g/cm3 @ 20 °C (68 °F)

Bulk density No data available

Water solubility No data available

No data available

Solubility in other solvents

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : No data available
Thermal decomposition : No data available

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

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

Extremes of temperature and direct sunlight.

Incompatible materials : Acids alkalis aluminum

Amines
Ammonia
halogens
Lead
Peroxides
Reducing agents
Strong bases

Strong oxidizing agents

Zinc metal salts

SECTION 11. TOXICOLOGICAL INFORMATION Acute toxicity

Product;

Acute oral toxicity : Acute toxicity estimate : 249.97 mg/kg

Method: Calculation method

Acute inhalation toxicity

: Acute toxicity estimate : 7.5 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 749.98 mg/kg

Method: Calculation method

CflmpQnentsi

67-56-1:

Acute oral toxicity

: LD50 (rat): 100 mg/kg

Assessment: The component/mixture is toxic after single

ingestion.

Acute inhalation toxicity : LC50 (rat): 5 mg/l

Assessment: The component/mixture is toxic after short

term inhalation.

Acute dermal toxicity : LD50 (rabbit): 300 mg/kg

Assessment: The component/mixture is toxic after single

contact with skin.

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

67-64-1:

Acute oral toxicity : LD50 (rat): 5,800 mg/kg

Acute inhalation toxicity : LC50 (rat): 76.0 mg/l Exposure time: 4 h

Acute dermal toxicity : LD50 : > 7,426 mg/kg

64742-49-0:

Acute oral toxicity

: LD50 (rat, male and female): > 5,000 mg/kg Method:

OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity

: LD50 (rabbit, male and female): > 2,000 mg/kg Method:

OECD Test Guideline 402

GLP: yes

64742-89-8:

Acute oral toxicity : LD50 (rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity

: LD50 (rabbit, male and female): > 2,000 mg/kg Method:

OECD Test Guideline 402

GLP: yes

68410-97-9:

Acute oral toxicity : LD50 (rat): > 5,000 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (rabbit): > 2,000 mg/kg

142-82-5:

Acute oral toxicity

: LD50 (rat, male and female): 5,000 mg/kg

Method: OECD Test Guideline 401

Symptoms: Salivation

GLP: yes

Remarks: Information given is based on data obtained from

similar substances.

Acute inhalation toxicity : LC50 (rat, male and female): 73.5 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

: LD50 (rabbit, male and female): > 2,000 mg/kg Method:

OECD Test Guideline 402

GLP: yes

Remarks: Information given is based on data obtained from

similar substances.

Skin corrosion/irritation

Acute dermal toxicity

Product;

Remarks: Irritating to skin.

Components;

67-56-1:

Species: rabbit

Result: No skin irritation

108-88-3:

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

67-64-1:

Species: rabbit Exposure time: 24 h Method: In vivo

Result: Mild skin irritation

64742-49-0:

Species: rabbit Result: Irritating to skin.

64742-89-8:

Species: rabbit Exposure time: 4 h Result:

Irritating to skin.

68410-97-9:

Species: rabbit Result: Irritating to skin.

142-82-5:

Species: rabbit Exposure time: 24 h Method: OECD Test

Guideline 404 Result: Irritating to skin.

GLP: yes

Remarks: Based on a similar product formulation.

Serious eye damage/eye irritation

Product:

Remarks: Irritating to eyes.

Components:

67-56-1:

Species: rabbit Result: No eye irritation

108-88-3:

Species: rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405 **67-64-1**:

Species: rabbit Result: Irritating to eyes. Exposure time:

24 h

64742-49-0: Species: rabbit

Result: Irritating to eyes.

64742-89-8:

Species: rabbit Result: Irritating to eyes.

68410-97-9:

Species: rabbit Result: Irritating to eyes.

142-82-5:

Species: rabbit Result: Irritating to eyes.

Method: OECD Test Guideline 405 GLP: yes

Remarks: Information given is based on data obtained from similar substances.

Respiratory or skin sensitisation

Components;

67-56-1:

Test Type: Maximisation Test (GPMT)

Species: guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

108-88-3:

Test Type: Maximisation Test (GPMT)

Species: guinea pig

Result: Did not cause sensitisation on laboratory animals. GLP: yes 67-64-1:

Test Type: Maximization test Species: guinea pig

Result: Did not cause sensitisation on laboratory animals.

64742-49-0:

Test Type: BuehlerTest Species: guinea pig

Result: Did not cause sensitisation on laboratory animals.

64742-89-8:

Test Type: BuehlerTest Species: guinea pig

Result: Did not cause sensitisation on laboratory animals.

142-82-5:

Test Type: Maximization test Species: guinea pig

Method: OECD Test Guideline 406 Result: Does not cause skin sensitisation. Remarks: Based on a similar product formulation

Germ cell mutagenicity Cfl.mp.an.en.ta;

67-56-1:

Genotoxicity in vitro

: Test Type: DNA damage and/or repair

Metabolic activation: with and without metabolic activation

Result: Ambiguous

Genotoxicity in vivo

: Test Type: In vivo micronucleus test Test species: mouse (male and female)

Cell type: Bone marrow

Application Route: Intraperitoneal

Exposure time: Single

Dose: 0, 1920, 3200, 4480 mg/kg

Result: negative

Germ cell mutagenicity-

Assessment

: Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

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.

67-64-1:

Genotoxicity in vitro

: Test Type: Mammalian cell gene mutation assay

Test species: Mouse lymphoma cells

Metabolic activation: Without metabolic activation Method:

OECD Test Guideline 476

Result: negative

: Test Type: Ames test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

: Test Type: Chromosome aberration test in vitro Test species: Chinese hamster ovary (CHO)

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo

: Test Type: In vivo micronucleus test

Test species: mouse Application Route: Oral Exposure time: 13 wk

Dose: 5,000, 10,000, 20,000 ppm

Result: negative

Germ ceil mutagenicity-Assessment

: Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

64742-49-0:

Germ cell mutagenicity-

Assessment

: Mutagenicity classification not possible from current data

64742-89-8:

Germ cell mutagenicity-

Assessment

: Mutagenicity classification not possible from current data

68410-97-9:

Genotoxicity in vitro

: Test Type: Mammalian cell gene mutation assay

Test species: mouse lymphoma cells

Result: positive

Genotoxicity in vivo

: Test Type: In vivo micronucleus test

Test species: mouse

Method: OECD Test Guideline 474

Result: positive

Germ cell mutagenicity-

Assessment

: Positive result(s) from in vivo heritable germ cell mu-

tagenicity tests in mammals

142-82-5:

Genotoxicity in vitro

: Test Type: Chromosome aberration test in vitro

Test species: Rat liver

Metabolic activation: Without metabolic activation Method:

OECD Test Guideline 473

Result: negative

: Test Type: Ames test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Germ cell mutagenicity-

Assessment

: Did not show mutagenic effects in animal experiments.

<u>Ver</u>Carcinogenicity

Components;

67-56-1:

Carcinogenicity - Assessment : Suspected human carcinogens

108-88-3:

Species: rat, (male and female)
Application Route: inhalation (vapour)

Exposure time: 103 wks Dose: 0, 600, 1200 ppm

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

67-64-1:

Species: mouse, (female)

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

Application Route: Dermal Exposure time: 365 d (90%) or 424 d (100%) Dose: 0.1ml 90(71mg) or 100% (79mg) Frequency of

Treatment: 3 times perwk NOAEL: 79

Result: did not display carcinogenic properties

Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.

64742-49-0: : Not classifiable as a human carcinogen.

Carcinogenicity - Assessment

64742-89-8:

Carcinogenicity - As- : Not classifiable as a human carcinogen,

sessment

68410-97-9:

Species: mouse NOAEL: 50 mg/kg

bw/day

Method: OECD Test Guideline 451 Result: evidence of

carcinogenic activity

Carcinogenicity - As- : Possible human carcinogen

sessment 142-82-5:

Remarks: This information is not available.

Carcinogenicity - As-

sessment

Carcinogenicity classification not possible from current data.

Reproductive toxicity

Components;

67-56-1:

Effects on fertility

: Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 0.013, 0.13, 1.3 mg/L Duration of Single Treatment: 20 h General Toxicity - Parent: NOAEC: 1.3 mg/l General Toxicity FI: NOAEC: 0.13 mg/l Fertility: NOAEC: 1.3 mg/l Symptoms: Effects on postnatal development. Result: Animal testing did not show any effects on fertility.

: Species: rat

Application Route: inhalation (vapour)
Dose: 0, 6.65, 13.3, 26.6 mg/L
Duration of Single Treatment: 20 d
Frequency of Treatment: 7 hr/day

General Toxicity Maternal: NOAEC: 13.3 mg/L

Effects on foetal devel-

opment

Teratogenicity: NOAEC: 6.65 mg/L

Result: Teratogenic effects.

: Some evidence of adverse effects on sexual function and fertility,

and/or on development, based on animal experiments.

108-88-3:

Reproductive toxicity -

Assessment

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 FI: 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.

67-64-1:

Effects on fertility

: Species: rat, male Application Route: oral Dose: 0, 5000, 10000 mg/L

Frequency of Treatment: 7 days/week General Toxicity - Parent: LOAEL: 10,000

Fertility: 10,000

Effects on foetal devel-

opment

: Species: rat

Application Route: Inhalation

> Dose: 0, 440, 2200, 11000 ppm Frequency of Treatment: 7 days/week

General Toxicity Maternal: NOAEC: 2,200 ppm Teratogenicity:

NOAEC: 11,000 ppm

Embryo-foetal toxicity.: NOAEC: 2,200 ppm

Method: OECD Test Guideline 414 Result: No teratogenic potential.

GLP: No data available

Reproductive toxicity -

Assessment

: No evidence of adverse effects on sexual function and fertility, and

on development, based on animal experiments.

64742-49-0:

Reproductive toxicity -Assessment

: Fertility classification not possible from current data.

Embryotoxicity classification not possible from current data.

64742-89-8:

Reproductive toxicity -

Assessment

: Fertility classification not possible from current data.

Embryotoxicity classification not possible from current data.

68410-97-9:

Reproductive toxicity -

Assessment

: Fertility classification not possible from current data.

Embryotoxicity classification not possible from current data.

142-82-5:

Effects on fertility

: Test Type: Two-generation study

Species: rat, male and female Application Route: vapour Dose: 0, 900, 3000, 9000 ppm

Frequency of Treatment: 5 days/week

General Toxicity - Parent: NOAEC: 3,000 ppm General Toxicity FI: NOAEC: 3,000 ppm

Fertility: NOAEC: 9,000 ppm

Symptoms: Reduced maternal body weight gain. Reduced

offspring weight gain.

Method: OECD Test Guideline 416 Result: No reproductive effects.

GLP: yes

Remarks: Information given is based on data obtained from

similar substances.

Effects on foetal development

: Species: mouse

Application Route: inhalation (vapour)

Dose: 0, 900, 3000, 9000 ppm Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day

General Toxicity Maternal: NOAEC: 900 ppm Developmental Toxicity: NOAEC: 3,000 ppm

Symptoms: Skeletal malformations.

Method: OECD Test Guideline 414 GLP: yes

Remarks: Information given is based on data obtained from similar

substances.

Reproductive toxicity - Assessment

: Animal testing did not show any effects on fertility. Embryotoxicity classification not possible from current

data.

STOT - single exposure Product:No data available

Components:

67-56-1:

Exposure routes:	Target Organs:	Assessment:	Remarks:
•	Eyes, Central nervous system	Causes damage to organs., The substance or mixture is classified as specific target organ toxicant, single expo-	
		sure, category 1.	

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, cate- gory 3 with narcotic effects.	

67-64-1:

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, cate-	
		gory 3 with narcotic	
		effects.	

64742-49-0:

0101011 111			Cicii Batel Cifife	_
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, cate-		
		gory 3 with narcotic		
		effects.		
		Inhalation Central nervous system	Exposure routes: Target Organs: Assessment:	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

64742-89-8:No data available

68410-97-9:

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, cate-	
		gory 3 with narcotic	
		effects.	

142-82-5:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation		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:

67-56-I:No data available

108-88-3:

Exposure routes:	Target Organs:	Assessment:	Remarks:
	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.	- Comunities

67-64-I:No data available

64742-49-0:No data available

64742-89-8:No data available

68410-97-9:No data available

142-82-5:No data available

Repeated dose toxicity

67-56-1:

Species: mouse, male and female NOAEL: 1.3 mg/l Application Route: Inhalation Exposure time: 12 mths Number of exposures: Continuous Dose: 0, 0.013, 0.13, 1.3 mg/L

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 **67-64-1:** Species: mouse, male NOAEL: 20000

Application Route: Oral Exposure time: 13 wk Number of exposures: daily

Dose: 1250, 2500, 5000, 10000, 20000 Method: OECD Test Guideline 408

GLP: No data available

Species: mouse, female

NOAEL: 20000 LOAEL: 50000

Application Route: Oral Exposure time: 13 wk Number of exposures: daily

Dose: 2500, 5000, 10000, 20000, 5000 Method: OECD Test Guideline 408

GLP: No data available

Repeated dose toxicity - : Causes mild skin irritation., Causes serious eye irrita-

Assessment tion

64742-89-8:

Species: rat, male and female

NOAEL: 1402

Application Route: inhalation (vapour)

Test atmosphere: vapour Exposure time: 13 weeks

Number of exposures: 6 hours/day, 5 days/week Dose:

322, 1402, 9869 mg/m3 GLP: yes

Target Organs: Kidney

Symptoms: Nasal and ocular discharge

142-82-5:

Species: rat, male NOAEL: 12470 mg/m3

Application Route: inhalation (vapour)

Exposure time: 16 wks

Number of exposures: 12 h/d, 7 d/wk

Dose: 0, 12470 mg/3

Repeated dose toxicity - : Causes skin irritation.

Assessment

Aspiration toxicity

Components:

108-88-3:

Aspiration Toxicity - Category 1

64742-49-0:

May be fatal if swallowed and enters airways.

64742-89-8:

May be fatal if swallowed and enters airways.

68410-97-9:

May be fatal if swallowed and enters airways.

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

Component

s;

67-56-1: : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l

Toxicity to fish Exposure time: 96 h Test Type:

flow-through test

: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure

Toxicity to daphnia and time: 48 h Test Type: static test

other aquatic invertebrates

: EC50 (Scenedesmus capricornutum (fresh water algae)): Toxicity to algae 22,000 mg/I End point: Growth rate Exposure time: 96 h

Test Type: static test

Method: OECD Test Guideline 201

Toxicity to bacteria

: IC50 (activated sludge): > 1,000 mg/l

End point: Growth rate Exposure time: 3 h Test Type: Static

Method: OECD Test Guideline 209

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.

67-64-1:

Toxicity to fish

: LC50 (Oncorhynchus mykiss (rainbow trout)): 6,100 mg/l

Exposure time: 48 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 7,630 mg/l Exposure

time: 48 h

Test substance: Acetone

Toxicity to algae : Remarks: No data available

64742-49-0:

Toxicity to fish

: LC50 (Oncorhynchus mykiss (rainbow trout)): 10 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic inverte-

: EC50 (Daphnia magna (Water flea)): 4.5 mg/l Exposure time:

48 h

brates

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 3.71

mg/l

Exposure time: 96 h

Ecotoxicology Assessment

Acute aquatic toxicity

: Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

64742-89-8: Toxicity to fish

: LC50 (Oncorhynchus mykiss (rainbow trout)): 8.2 mg/l

Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 4.5 mg/l Exposure time:

48 h

Test Type: Immobilization Analytical monitoring: yes

Toxicity to algae

: EC50 (Pseudokirchneriella subcapitata (green algae)): 3.7

mg/l

Exposure time: 96 h
Test Type: static test

Ecotoxicology Assessment

Acute aquatic toxicity

: Toxic to aquatic life.

Chronic aquatic toxicity

: Toxic to aquatic life with long lasting effects.

68410-97-9:

Toxicity to fish

: LC50 (Pimephales promelas (fathead minnow)): 8.2 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 4.5 mg/l Exposure time:

48 h

Toxicity to algae

: EC50 (Pseudokirchneriella subcapitata (green algae)): 3.1

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Ecotoxicology Assessment

Acute aquatic toxicity

: Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

142-82-5:

Toxicity to fish : LC50 (Carassius auratus (goldfish)): 4 mg/l

Exposure time: 24 h

Remarks: Very toxic to aquatic organisms, may cause long-

term adverse effects in the aquatic environment.

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 1.5 mg/l Exposure time:

48 h

Test Type: static test

Remarks: Very toxic to aquatic organisms.

Toxicity to algae : Remarks: No data available

Ecotoxicology Assessment

Acute aquatic toxicity

: Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability Components;

67-56-1:

Biodegradability : aerobic

Result: Readily biodegradable.

Biodegradation: 72 %

Remarks: Readily biodegradable

Biochemical Oxygen Demand

(BOD)

: 600 - 1,120 mg/g

Chemical Oxygen Demand

(COD)

: 1,420 mg/g

BOD/COD : BOD: 600 - 1120COD: 1420

Stability in water

: Hydrolysis: 91 % atl9 °C(72 h)

Remarks: Hydrolyses on contact with water. Hydrolyses

readily.

108-88-3:

Biodegradability

: Inoculum: Sewage Biodegradation: 100 %

Remarks: Readily biodegradable

67-64-1:

Biodegradability: Remarks: Readily biodegradable

Biodegradability : aerobic

Inoculum: activated sludge Concentration: 20 mg/l Biodegradation: 74.30 % Exposure time: 56 d

GLP: yes

Remarks: Inherently biodegradable.

64742-89-8:

Biodegradability

: Concentration: 49.2 mg/l Result: Readily biodegradable.

Biodegradation: 77 % Testing period: 2d Exposure time: 28 d

GLP: yes

142-82-5:

Biodegradability

: Primary biodegradation Inoculum: activated sludge Concentration: 100 mg/l Biodegradation: 100 % Testing period: 2 d Exposure time: 25 d

Remarks: Readily biodegradable

Bioaccumulative potential

Components:

67-56-1:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Bioconcentration factor (BCF): 1.0

Exposure time: 72 d Temperature: 20 °C Concentration: 5 mg/l

Remarks: This substance is not considered to be very

persistent nor very bioaccumulating (vPvB).

: log Pow: -0.77

Partition coefficient: n-

octanol/water

108-88-3:

Partition coefficient: n- : log Pow: 2.73

octanol/water

67-64-1:

Partition coefficient: n-

octanol/water

: log Pow: -0.24

Partition coefficient: n-

octanol/water

: Remarks: No data available

64742-89-8:

Partition coefficient: n-

octanol/water

: log Pow: 2.13 - 4.85 (25 °C)

Mobility in soil

No data available

Other adverse effects

No data available

Product;

Regulation

Remarks 40 CFR Protection of Environment: Part 82 Protection of

Stratospheric Ozone - CAA Section 602 Class I Substances 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 $% \left(1\right) =\left(1\right) \left(1\right)$

unprofessional handling or disposal., Toxic to aquatic life with long

lasting effects.

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.

SECTION 14. TRANSPORT INFORMATION

I ATA (International Air Transport Association): UN1263, PAINT RELATED MATERIAL, 3, II, Flash Point:-20.00 °C(-4.00 °F)

IMDG (International Maritime Dangerous Goods): UN1263, PAINT RELATED MATERIAL, 3, II

DOT (Department of Transportation): UN1263, PAINT RELATED MATERIAL, 3, II

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Flammable liquid, Carcinogen, Toxic by ingestion,

Toxic by skin absorption, Moderate skin irritant, Moderate eye

irritant, Teratogen, Reproductive hazard, Mutagen

WHMIS Classification: B2: Flammable liquid

DIB: Toxic Material Causing Immediate and Serious Toxic Effects 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	2856

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 Chronic Health Hazard

Acute Health Hazard

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR61):

67-56-1	Methanol	40.0009%
108-88-3	Toluene	35.01%
71-43-2	Benzene	0.0457%
100-41-4	Ethylbenzene	0.0449%
110-54-3	Hexane	0.002%
91-20-3	Naphthalene	0.0002%
98-82-8	Cumene	0.0001%

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):

Version 1.1				Revision Date: 07/7/2015
	67-56-1	_	Methanol	40.0009 %
	108-88-	3	Toluene	35.01 %
	67-64-1	-	Acetone	15 %
	110-82-		Cyclohexane	0.25 %
	71-43-2 100-41-		Benzene	0.0457 %
	1330-20		Ethylbenzene Mixed xylenes	0.0449 % 0.013 %
	98-82-8		Cumene	0.0001 %
Clea	n Water Act			
	following Hazaı 311, Table 116		Substances are listed under the L	J.S. CleanWate
	108-88-		Toluene	35.01 %
	110-82-	7	Cyclohexane	0.25 %
	71-43-2		Benzene	0.0457 %
	100-41-	4	Ethylbenzene	0.0449 %
	1330-20)-7	Mixed xylenes	0.013 %
	91-20-3		Naphthalene	0.0002 %
	following Hazaı Table 117.3:	dous	Chemicals are listed under the U.	S. CleanWater
- ,	108-88-	3	Toluene	35.01 %
	110-82-	7	Cyclohexane	0.25 %
	71-43-2		Benzene	0.0457 %
	100-41-	4	Ethylbenzene	0.0449 %
	1330-20)-7	Mixed xylenes	0.013 %
	91-20-3		Naphthalene	0.0002 %
	product contain Section 307	ns the f	following toxic pollutants listed unde	r the U.S. '
Acti	108-88-	3	Toluene	35.01 %
US State R	egulations Ma	ssach	usetts	
Right To K				
_	7-56-1	Meth	anol	30 - 50 %
_	08-88-3	Tolue		30 - 50 %
	7-64-1	Aceto		10 - 20 %
	1-43-2	Benz		0 - 0.1 %
R	ight To Know			
	7-56-1	Meth	anol	30 - 50 %
10	08-88-3	Tolue	ene	30 - 50 %
67	7-64-1	Aceto	one	10 - 20 %
	4742-49-0		ntha (pet), hydrotreated It	0 - 20 %
	4742-89-8	-	ent naphtha (pet), Italiph.	0 - 20 %
			1 4 /- 1	
	3410-97-9	low-b		
	10-82-7		phexane	0.1 - 1 %
7	1-43-2	Benz	ene	0 - 0.1 %
10	00-41-4	Ethyl	benzene	0 - 0.1 %
				2 2 4 2 4

1330-20-7

Mixed xylenes

0 - 0.1 %

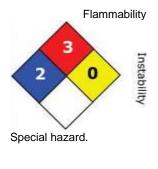
	ht To Know 67-56-1 108-88-3 67-64-1 64742-49-0 64742-89-8 68410-97-9	Methanol Toluene Acetone Naphtha (pet), hydrotreated It Solvent naphtha (pet), It aliph. Distillates, pet, It dist hydrotreat process, low-boil Revision I	30 - 50 % 30 - 50 % 10 - 20 % 0 - 20 % 0 - 20 % 0 - 20 %
California Prop (71-43-2 100-41-4 91-20-3 98-82-8 67-56-1 108-88-3	WARNING! This product contains a chemical known to the State of California to cause cancer. Benzene Ethylbenzene Naphthalene Cumene WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Methanol Toluene Benzene	

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

71-43-2

ine components of this product are reported in the following	
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 Inventory)
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	n (Negative listing) (Not in compliance with the inventory)
Japan. ENCS - Existing and New Chemical	n (Negative listing)

	Substances Inventory	(Not in compliance with the inventory)	
	Japan. ISHL - Inventory of Chemical Substances (METI)	n (Negative listing) (Not in compliance with the inventory)	
<u>Ver</u>	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)	



HMIS III:			
HEALTH	2*		
FLAMMABILITY	3		
PHYSICAL HAZARD	0		

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

SECTION 16. OTHER INFORMATION

Further information

NFPA:

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.

LegecyMSDS: 000000148128 **Material number:**

Material number 707948, 707692

Key or leg	end to abbreviations and acronyn	ns used	in the safety datasheet
ACGIH	American Conference of Gov-	LD50	Lethal Dose 50%
	ernment Industrial Hygienists		
AICS	Australia, Inventory of Chemical	LOAEL	Lowest Observed Adverse Effect
	Substances		Level
DSL		NFPA	National Fire Protection Agency
	Canada, Domestic Substances List		
NDSL	Canada, Non-Domestic Substances	NIOSH	National Institute for Occupational Safety &
	List		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 Existing	PICCS	Philipines Inventory of Commercial
	Chemical Substances		Chemical Substances
MAK	Germany Maximum Concentration	PRNT	Presumed Not Toxic
	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 Research	TLV	Threshold Limit Value
	on Cancer		
IECSC	Inventory of Existing Chemical	TWA	Time Weighted Average
	Substances in China		
ENCS		TSCA	Toxic Substance Control Act
	Japan, Inventory of Existing and		
	New Chemical Substances		
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 Con-	centration 50%