



Safety Data Sheet

Wash Lacquer Thinner

Version 0.0

Revision Date: 11/16/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Wash Lacquer Thinner 100

Recommended use of the chemical and restrictions on use

Recommended use : Solvent.

Manufacturer or supplier's details

Company : FAMIS INC.
Address 5689 NW 35TH COURT
MIAMI, FLORIDA 33142
United States of America

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 2

Acute toxicity (Oral) : Category 3

Acute toxicity (Inhalation) : Category 3

Acute toxicity (Dermal) : Category 3

Skin irritation : Category 2

Eye irritation : Category 2A

Reproductive toxicity : Category 2

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

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

Specific target organ toxicity : Category 2 (Central nervous system, Peripheral nervous system)

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icity - repeated exposure system)

Specific target organ tox- : Category 2 (Auditory system, Eyes)
icity - repeated exposure
(Inhalation)

Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard 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.
H361 Suspected of damaging fertility or the unborn child.
H370 Causes damage to organs (Eyes, Central nervous system).
H373 May cause damage to organs (Central nervous system, Peripheral nervous system) through prolonged or repeated exposure.
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/sparks/open flames/hot surfaces. - 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.



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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/ protective clothing/ eye protection/ face protection.

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 + P533 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep 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 to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

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

Potential Health Effects

Carcinogenicity:

IARC

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

ACGIH

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



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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

Physical state	liquid
Colour	Clear, Colorless
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	20 - 30
68410-97-9 / 64742-49-0 / 64742-89-8	Distillates, pet, lt dist hydrotreat process, low-boil AND/OR Naphtha (pet), hy- drotreated lt AND/OR Solvent naphtha (pet), lt aliph.	20 - 30
67-64-1	Acetone	10 - 20
142-82-5	**Heptane	5 - 10
111-76-2	2-Butoxy ethanol	1 - 5

Special Notes: : ** Other substances in the product which may present a health or environmental hazard.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.



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- | | |
|-------------------------|--|
| 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 (CO ₂)
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. |



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

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-



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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
67-56-1	Methanol	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m ³	NIOSH REL
		ST	250 ppm 325 mg/m ³	NIOSH REL
		TWA	200 ppm 260 mg/m ³	OSHA Z-1
		STEL	250 ppm 325 mg/m ³	OSHA P0
		TWA	200 ppm 260 mg/m ³	OSHA P0
108-88-3	Toluene	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m ³	NIOSH REL
		ST	150 ppm 560 mg/m ³	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/m ³	OSHA P0
68410-97-9 / 64742-49-0 / 64742-89-8	Distillates, pet, It dist hydrotreat process, low-boil AND/OR Naphtha (pet), hydrotreated It AND/OR Solvent naphtha (pet), It aliph.	TWA	500 ppm 2,000 mg/m ³	OSHA Z-1
		TWA	400 ppm 1,600 mg/m ³	OSHA P0
67-64-1	Acetone	TWA	500 ppm	ACGIH
		STEL	750 ppm	ACGIH



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		TWA	250 ppm 590 mg/m ³	NIOSH REL
		TWA	1,000 ppm 2,400 mg/m ³	OSHA Z-1
		TWA	750 ppm 1,800 mg/m ³	OSHA P0
		STEL	1,000 ppm 2,400 mg/m ³	OSHA P0
142-82-5	**Heptane	TWA	85 ppm 350 mg/m ³	NIOSH REL
		C	440 ppm 1,800 mg/m ³	NIOSH REL
		TWA	500 ppm 2,000 mg/m ³	OSHA Z-1
		TWA	400 ppm 1,600 mg/m ³	OSHA P0
		STEL	500 ppm 2,000 mg/m ³	OSHA P0
		TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH
111-76-2	2-Butoxy ethanol	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m ³	NIOSH REL
		TWA	50 ppm 240 mg/m ³	OSHA Z-1
		TWA	25 ppm 120 mg/m ³	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI
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	0.03 mg/l	ACGIH BEI



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				soon as possible after exposure ceases)		
		o-Cresol	Urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/g Creatinine	ACGIH BEI
Acetone	67-64-1	Acetone	Urine	End of shift (As soon as possible after exposure ceases)	50 mg/l	ACGIH BEI
2-Butoxy ethanol	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g Creatinine	ACGIH BEI

Personal protective equipment

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

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

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

Skin and body protection : impervious clothing



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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, Colorless

Odour : No data available

Odour Threshold : No data available

pH : No data available

Freezing Point : No data available

Boiling Point : No data available

Flash point : -20.00 °C (-4.00 °F)

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Burning rate : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 0.781 g/cm³ @ 20 °C (68 °F)

Bulk density : No data available



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Water solubility : No data available
Solubility in other sol-
vents : No data available

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 : No hazards to be specially mentioned.

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

Incompatible materials : Bases
Oxidizing agents
Reducing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : 249.15 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 1164 ppm
Exposure time: 4 h Test
atmosphere: gas Method:
Calculation method

Acute dermal toxicity : Acute toxicity estimate : 745.51 mg/kg



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Method: Calculation method

Components:

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

68410-97-9 / 64742-49-0 / 64742-89-8:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Assessment: The component/mixture is toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

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



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111-76-2:

Acute oral toxicity : LD50 (Rat): 745 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): 550 ppm
Exposure time: 4 h
Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rat): 1,250 mg/kg
Assessment: The component/mixture is moderately toxic after single contact with skin.

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation in susceptible persons.

Components:

67-56-1:

Species: Rabbit
Result: No skin irritation

108-88-3:

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

68410-97-9 / 64742-49-0 / 64742-89-8:

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

111-76-2:

Species: Rabbit
Result: Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.



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Components:

67-56-1:

Species: Rabbit

Result: No eye irritation

108-88-3:

Species: Rabbit

Result: Irritating to eyes.

Method: OECD Test Guideline 405

68410-97-9 / 64742-49-0 / 64742-89-8:

Species: Rabbit

Result: Irritating to eyes.

67-64-1:

Species: Rabbit

Result: Irritating to eyes.

Exposure time: 24 h

111-76-2:

Species: Rabbit

Result: Irritating to eyes.

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

68410-97-9 / 64742-49-0 / 64742-89-8:

Test Type: Buehler Test

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

67-64-1:

Test Type: Maximization test

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

111-76-2:

Test Type: Maximization test



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Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:

67-56-1:

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

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Test species: Mouse (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.

68410-97-9 / 64742-49-0 / 64742-89-8:

Germ cell mutagenicity-
Assessment : Mutagenicity classification not possible from current
data

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



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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 cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

111-76-2:

Genotoxicity in vitro : Test Type: Mammalian cell gene mutation assay
Test species: Chinese hamster ovary (CHO)
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Test species: Mouse (male)
Application Route: Intraperitoneal
Result: negative

Germ cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

67-56-1:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

108-88-3:

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



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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.

68410-97-9 / 64742-49-0 / 64742-89-8:

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

67-64-1:

Species: Mouse, (female)
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 per wk
NOAEL: 79

Result: did not display carcinogenic properties

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

111-76-2:

Species: Mouse
Application Route: Inhalation
Exposure time: 2 yr
Activity duration: 6 h
Frequency of Treatment: 5 days/week
NOAEL: 125 ppm

Result: Limited evidence of carcinogenic effects with no relevance to humans

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

Components:

67-56-1:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Inhalation



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- 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 F1: 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.
- Reproductive toxicity - Assessment : Fertility classification not possible from current data.
Embryotoxicity classification not possible from current data.
- 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



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Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

68410-97-9 / 64742-49-0 / 64742-89-8:

Reproductive toxicity - Assessment : Fertility classification not possible from current data. Embryotoxicity classification not possible from current data.

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 development : 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, or on development, based on animal experiments.

111-76-2:

Effects on fertility : Test Type: Two-generation study
Species: Mouse
Application Route: oral
Fertility: NOAEL: 720 mg/kg body weight
Symptoms: Reduced fertility
Result: Reduced fertility at maternally toxic doses

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Inhalation
Duration of Single Treatment: 10 d
Frequency of Treatment: 6 hr/day
Developmental Toxicity: Lowest observed adverse effect level: 100 ppm
Result: Developmental toxicity occurred at maternal toxicity dose levels

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.



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Assessment

fertility, or on development, based on animal experiments.

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 exposure, 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, category 3 with narcotic effects.	

68410-97-9 / 64742-49-0 / 64742-89-8:

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.	

67-64-1:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Central nervous system	May cause drowsiness or dizziness., The substance or mixture is classified	



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		as specific target organ toxicant, single exposure, category 3 with narcotic effects.	
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142-82-5:No data available

111-76-2:No data available

STOT - repeated exposure

Product:No data available

Components:

67-56-1:No data available

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.	

68410-97-9 / 64742-49-0 / 64742-89-8:

Exposure routes:	Target Organs:	Assessment:	Remarks:
	Central nervous system, Peripheral nervous system	The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.	

67-64-1:No data available



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142-82-5:No data available

111-76-2:No data available

Repeated dose toxicity

Components:

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

68410-97-9 / 64742-49-0 / 64742-89-8:

Species: Rat, male and female
NOAEL: 1402
Application Route: inhalation (vapour)
Test atmosphere: vapour
Exposure time: 13
Number of exposures: 6 hours/day, 5 day
Dose: 322,1402, 9869 mg/m³
GLP: yes
Target Organs: Kidney
Symptoms: Nasal and ocular discharge

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



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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 - Assessment : Causes mild skin irritation., Causes serious eye irritation.

111-76-2:

Species: Rat
NOAEL: 30
Application Route: Inhalation
Exposure time: 14 wk
Number of exposures: 6 h/d, 5 d/wk

Aspiration toxicity

Components:

108-88-3:

May be fatal if swallowed and enters airways.

68410-97-9 / 64742-49-0 / 64742-89-8:

May be fatal if swallowed and enters airways.

111-76-2:

No aspiration toxicity classification

Further information

Product:

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

Components:

68410-97-9 / 64742-49-0 / 64742-89-8:

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



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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

67-56-1:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae : EC50 (Scenedesmus capricornutum (fresh water algae)): > 1,000 mg/l
End point: Growth rate
Exposure time: 72 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.



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

68410-97-9 / 64742-49-0 / 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
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.

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

111-76-2:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1,474 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: no

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,800 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: no

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



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911 mg/l
End point: Biomass
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: no

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 - 1120 COD: 1420

Stability in water : Hydrolysis: 91 % at 19 °C (72 h)
Remarks: Hydrolyses on contact with water.
Hydrolyses readily.

108-88-3:

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

68410-97-9 / 64742-49-0 / 64742-89-8:

Biodegradability : Concentration: 49.2 mg/l
Result: Readily biodegradable
Biodegradation: 77 %
Testing period: 2 d
Exposure time: 28 d

67-64-1:

Biodegradability : Remarks: Readily biodegradable

111-76-2:

Biodegradability : aerobic
Inoculum: Activated sludge, domestic, adaption not specified
Result: Readily biodegradable



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Biodegradation: 90.4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: no

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 and very bioaccumulating (vPvB).
Partition coefficient: n-octanol/water : log Pow: -0.77

108-88-3:

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

67-64-1:

Partition coefficient: n-octanol/water : log Pow: -0.24

111-76-2:

Partition coefficient: n-octanol/water : log Pow: 0.83

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



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



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Components:

68410-97-9 / 64742-49-0 / 64742-89-8:

Additional ecological information : An environmental hazard cannot be excluded in the event of 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.

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): UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., (METHANOL, MIXTURE OF PETROLEUM DISTILLATES), 3 (6.1), II, Flash Point:-20.00 °C(-4.00 °F)

IMDG (International Maritime Dangerous Goods): UN1992, FLAMMABLE LIQUID, TOXIC, N.O.S., (METHANOL, MIXTURE OF PETROLEUM DISTILLATES), 3, (6.1), II, Marine Pollutant (TOLUENE, MIXTURE OF PETROLEUM DISTILLATES)

DOT (Department of Transportation): UN1992, Flammable liquids, toxic, n.o.s., (METHANOL, MIXTURE OF PETROLEUM DISTILLATES), 3 (6.1), II

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Flammable liquid, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Moderate skin irritant, Moderate eye irritant, Aspiration hazard, Teratogen, Reproductive hazard

WHMIS Classification : B2: Flammable liquid
D1A: Very Toxic Material Causing Immediate and



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Serious Toxic Effects
D1B: 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	4163

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Fire Hazard
Immediate (Acute) Health Hazard
Chronic (Delayed) Health Hazard

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:

67-56-1	Methanol	40.0009 %
108-88-3	Toluene	24.0199 %
111-76-2	2-Butoxy ethanol	1 %

Clean Air Act

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

67-56-1	Methanol	40.0009 %
108-88-3	Toluene	24.0199 %

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

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

67-56-1	Methanol	40.0009 %
108-88-3	Toluene	24.0199 %
67-64-1	Acetone	15 %
111-76-2	2-Butoxy ethanol	1 %

Clean Water Act

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



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108-88-3	Toluene	24.0199 %
110-82-7	**Cyclohexane	0.3 %
71-43-2	Benzene	0.0446 %
100-41-4	Ethylbenzene	0.024 %

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

108-88-3	Toluene	24.0199 %
110-82-7	**Cyclohexane	0.3 %
71-43-2	Benzene	0.0446 %
100-41-4	Ethylbenzene	0.024 %

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

108-88-3	Toluene	24.0199 %
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US State Regulations

Massachusetts Right To Know

67-56-1	Methanol	30 - 50 %
108-88-3	Toluene	20 - 30 %
67-64-1	Acetone	10 - 20 %
142-82-5	**Heptane	5 - 10 %
111-76-2	2-Butoxy ethanol	1 - 5 %
71-43-2	Benzene	0 - 0.1 %

Pennsylvania Right To Know

67-56-1	Methanol	30 - 50 %
108-88-3	Toluene	20 - 30 %
68410-97-9 / 64742-49-0 / 64742-89-8	Distillates, pet, lt dist hydrotreat process, low-boil AND/OR Naphtha (pet), hydrotreated lt AND/OR Solvent naphtha (pet), lt aliph.	20 - 30 %
67-64-1	Acetone	10 - 20 %
142-82-5	**Heptane	5 - 10 %
111-76-2	2-Butoxy ethanol	1 - 5 %
110-82-7	**Cyclohexane	0.1 - 1 %
71-43-2	Benzene	0 - 0.1 %
100-41-4	Ethylbenzene	0 - 0.1 %

New Jersey Right To Know

67-56-1	Methanol	30 - 50 %
108-88-3	Toluene	20 - 30 %
68410-97-9 / 64742-49-0 / 64742-89-8	Distillates, pet, lt dist hydrotreat process, low-boil AND/OR Naphtha (pet), hydrotreated lt AND/OR Solvent naphtha (pet), lt aliph.	20 - 30 %
67-64-1	Acetone	10 - 20 %
142-82-5	**Heptane	5 - 10 %
111-76-2	2-Butoxy ethanol	1 - 5 %



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California Prop 65

71-43-2
100-41-4
98-82-8

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

Benzene
Ethylbenzene
Cumene

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

67-56-1
108-88-3
71-43-2

Methanol
Toluene
Benzene

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

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	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ENCS - Existing and New Chemical Substances Inventory	:	n (Negative listing) (Not 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

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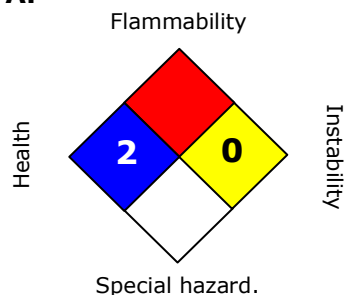
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with the inventory)

SECTION 16. OTHER INFORMATION **Further information**

NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	3
PHYSICAL HAZARD	0

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

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Legacy SDS: 000000195089

Material number:
784613, 773149, 772994

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration



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EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		