Safety Data Sheet
Premium Lacquer Thinner 210

Version 1.0 Revision Date: 10/22/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Premium Lacquer Thinner 210

Recommended use of the chemical and restrictions on use

Recommended use : Thinner

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 4
Acute toxicity (Inhalation)	: Category 4
Acute toxicity (Dermal)	: Category 4
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 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.
H302 + H312 + H332 Harmful 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 (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.
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.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Emergency Overview

Appearance	liquid
Colour	Clear, Colorless
Odour	Characteristic
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical Name	Concentration (%)
108-88-3	Toluene	30 - 50
67-64-1	Acetone	30 - 50
67-56-1	Methanol	20 - 30
111-76-2	2-Butoxy ethanol	5 - 10

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.

If inhaled : Call a physician or poison control centre immediately.
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 (CO2) Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: No hazardous combustion products are known
Specific extinguishing methods	: Use a water spray to cool fully closed containers.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

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	:	Prevent unauthorized access. 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	Control parameters / Permissi-	Basis

		exposure)	ble concentra-tion	
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
		STEL	750 ppm	ACGIH
		TWA	250 ppm 590 mg/m3	NIOSH REL
		TWA	1,000 ppm 2,400 mg/m3	OSHA Z-1
		TWA	750 ppm 1,800 mg/m3	OSHA P0
		STEL	1,000 ppm 2,400 mg/m3	OSHA P0
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	OSHA Z-1
		STEL	250 ppm 325 mg/m3	OSHA P0
		TWA	200 ppm 260 mg/m3	OSHA P0
111-76-2	2-Butoxy ethanol	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	25 ppm 120 mg/m3	OSHA P0

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	0.02 mg/l	ACGIH

	3			last shift of work-week		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 expo-sure ceases)	0.3 mg/g Creatinine	ACGIH BEI
Acetone	67-64-1	Acetone	Urine	End of shift (As soon as possible after expo-sure ceases)	50 mg/l	ACGIH BEI
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after expo-sure ceases)	15 mg/l	ACGIH BEI
2-Butoxy ethanol	111-76-2	Butoxya-cetic acid (BAA)	Urine	End of shift (As soon as possible after expo-sure 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 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	:	Characteristic
Odour Threshold	:	No data available
pH	:	No data available
Freezing Point	:	No data available
Boiling Point	:	No data available
Flash point	:	-18.3 °C (-0.9 °F)
Evaporation rate	:	> 1 Ethyl Ether
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	:	> 1(Air = 1.0)
Relative density	:	No data available
Density	:	0.823 g/cm3 @ 20 °C (68 °F)
Bulk density	:	No data available
Water solubility	:	No data available
Solubility in other solvents	:	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. Do not allow evaporation to dryness.
Incompatible materials	:	Bases Oxidizing agents Reducing agents

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	: Acute toxicity estimate : 374.73 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate : 2612 ppm Exposure time: 4 h Test atmosphere: gas Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : 1,100 mg/kg Method: Calculation method

Components:

108-88-3:

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

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

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.

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

Components:

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

67-56-1:
Species: Rabbit
Result: No skin irritation

111-76-2:
Species: Rabbit
Result: Irritating to skin.

Serious eye damage/eye irritation

Components:

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

67-56-1:
Species: Rabbit
Result: No eye irritation

111-76-2:
Species: Rabbit
Result: Irritating to eyes.

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

67-64-1:
Test Type: Maximization test
Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.

67-56-1:
Test Type: Maximisation Test (GPMT)
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Did not cause sensitisation on laboratory animals.

111-76-2:
Test Type: Maximization test
Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:
108-88-3:

Genotoxicity in vitro	:	Test Type: Mammalian cell gene mutation assay Test species: Mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
Genotoxicity in vivo	:	Test Type: Dominant lethal assay Test species: Mouse (male) Application Route: inhalation (vapour) Exposure time: 6 h/d, 5 d/wk for 8 wks Dose: 0, 100, 400 ppm

Method: OECD Test Guideline 478
Result: negative

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

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

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.

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:

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.

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.

67-56-1:
Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

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:

108-88-3:
Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Inhalation
Dose: 0, 100, 500, 2000 ppm Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: 500 ppm General Toxicity F1: NOAEC: 500 ppm
Fertility: NOAEC: 2,000 ppm
Symptoms: Reduced maternal body weight gain Reduced offspring weight gain
Method: OECD Test Guideline 416
Result: Animal testing did not show any effects on fertility.
GLP: yes

Test Type: Fertility
Species: Rat, male and female
Application Route: inhalation (vapour)
Dose: 0, 600, 1200 ppm
Frequency of Treatment: 7 days/week
General Toxicity - Parent: NOAEC: 600 ppm
Symptoms: Decreased sperm count
Result: Animal testing did not show any effects on fertility.

Effects on foetal development : Species: Rat
Application Route: inhalation (vapour)
Dose: 0, 250, 750, 1500, 3000 ppm
Duration of Single Treatment: 10 d

Frequency of Treatment: 6 hr/day
General Toxicity Maternal: NOAEC: 750 ppm
Developmental Toxicity: NOAEC: 750 ppm
Symptoms: Maternal toxicity, Reduced body weight, Skeletal malformations
GLP: yes

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

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.

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 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.

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.

STOT - single exposure

Product: No data available

Components:

108-88-3:

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

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, category 3 with narcotic effects.	

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.	

111-76-2:No data available

STOT - repeated exposure

Product: No data available

Components:

108-88-3:

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

67-64-1: No data available

67-56-1: No data available

111-76-2: No data available

Repeated dose toxicity

Components:

108-88-3:
Species: Rat, male and female
NOAEL: 300

Application Route: inhalation (vapour)
Exposure time: 6, 12, or 18 mths
Number of exposures: 6 h/d, 5 d/wk
Dose: 0, 30, 100, 300 ppm
Method: OECD Test Guideline 453
Repeated dose toxicity - Assessment : Causes skin irritation.

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

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

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.

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.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

108-88-3:

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

Ecotoxicology Assessment

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

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

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)): 22,000 mg/l 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

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)): 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:

108-88-3:

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

67-64-1:

Biodegradability : Remarks: Readily biodegradable

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 % at19 °C(72 h)
Remarks: Hydrolyses on contact with water.
Hydrolyses readily.

111-76-2:

Biodegradability : aerobic
Inoculum: Activated sludge, domestic, adaption not specified
Result: Readily biodegradable
Biodegradation: 90.4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: no

Bioaccumulative potential

Components:

108-88-3:

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

67-64-1:

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

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

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	:	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): UN1263, PAINT RELATED MATERIAL, 3, II, Flash Point:-18.3 °C(-0.9 °F)

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

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

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Flammable liquid, Harmful by ingestion., Harmful by skin absorption, Harmful by inhalation., Moderate skin irritant, Moderate eye irritant, Specific target organ toxicity - single exposure, Specific target organ toxicity - repeated exposure, Reproductive hazard, Aspiration hazard

WHMIS Classification : B2: Flammable liquid
D1A: Very Toxic Material Causing Immediate and 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	2786

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:

108-88-3	Toluene	35.8965 %
67-56-1	Methanol	25.9487 %
111-76-2	2-Butoxy ethanol	5.483 %

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	35.8965 %
67-56-1	Methanol	25.9487 %

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	35.8965 %
67-64-1	Acetone	32.6737 %
67-56-1	Methanol	25.9487 %
111-76-2	2-Butoxy ethanol	5.483 %

Clean Water Act

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

108-88-3	Toluene	35.8965 %
71-43-2	Benzene	0.0374 %
100-41-4	Ethylbenzene	0.0358 %

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

108-88-3	Toluene	35.8965 %
71-43-2	Benzene	0.0374 %
100-41-4	Ethylbenzene	0.0358 %

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

108-88-3	Toluene	35.8965 %

US State Regulations

Massachusetts Right To Know

108-88-3	Toluene	30 - 50 %
67-64-1	Acetone	30 - 50 %

67-56-1	Methanol	20 - 30 %
111-76-2	2-Butoxy ethanol	5 - 10 %
71-43-2	Benzene	0 - 0.1 %

Pennsylvania Right To Know

108-88-3	Toluene	30 - 50 %
67-64-1	Acetone	30 - 50 %
67-56-1	Methanol	20 - 30 %
111-76-2	2-Butoxy ethanol	5 - 10 %
71-43-2	Benzene	0 - 0.1 %
100-41-4	Ethylbenzene	0 - 0.1 %

New Jersey Right To Know

108-88-3	Toluene	30 - 50 %
67-64-1	Acetone	30 - 50 %
67-56-1	Methanol	20 - 30 %
111-76-2	2-Butoxy ethanol	5 - 10 %

California Prop 65

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

71-43-2	Benzene
100-41-4	Ethylbenzene
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
67-56-1	Methanol
71-43-2	Benzene

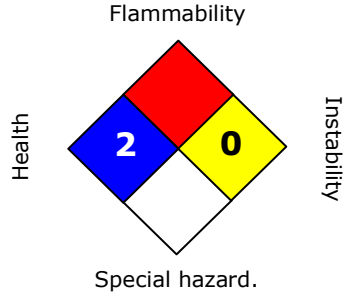
The components of this product are reported in the following inventories:

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	:	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**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.

Material number:
72004, 57971

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