

# Safety Data Sheet

Version 1.1

Revision Date: 07/8/2015

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## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier** Slow Acrylic Enamel Reducer

**Product code** 153

### 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

Flammable liquids : Category 2

Acute toxicity (Inhalation) : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Germ cell mutagenicity : Category 1B

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

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

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

Specific target organ tox- : Category 2 (Liver, Kidney, Central nervous system, Au-

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

Aspiration hazard                      : Category 1

### GHS Label element

Hazard pictograms



Signal word                      : Danger

Hazard statements

: H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
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 (Liver, Kidney, Central nervous system, Auditory 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, 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.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

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

It

64742-89-8

Solvent naphtha (pet), It

aliph.

100-41-4

Ethylbenzene

**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, colourless
Odour	No data available
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
64742-49-0	Naphtha (pet), hydrotreated It	0 - 30
64742-89-8	Solvent naphtha (pet), It aliph.	0 - 30
68410-97-9	Distillates, pet, It dist hydrotreat process, low-boil	0 - 30
67-64-1	Acetone	10 - 20
111-76-2	2-Butoxy ethanol	5 - 10
1330-20-7	Mixed xylenes	5 - 10
67-56-1	Methanol	1 - 5
100-41-4	Ethylbenzene	1 - 5
142-82-5	Heptane	0.1 - 1

**Special Notes:**

: Functionally equivalent petroleum streams may be found in this preparation at varying concentrations. ,Mixed Xylenes contains the isomers o-, m-, p- Xylene, and Ethylbenzene. Trace amounts of Toluene and Benzene may also be present as impurities.

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Symptoms of poisoning may appear several hours later.  
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.

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**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
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 : Carbon oxides

## products

Specific extinguishing methods : Use a water spray to cool fully closed containers.

## Further information

: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
For safety reasons in case of fire, cans should be stored separately in closed containments.

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

**NFPA Flammable and Combustible Liquids Classification**

Flammable Liquid Class IB

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Contain spillage, and then collect with noncombustible 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.  
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 storage : No smoking.  
age

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 (Form of exposure)	Control parameters / Permissible concentration	Basis
108-88-3	Toluene	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m <sup>3</sup>	NIOSH REL
		ST	150 ppm 560 mg/m <sup>3</sup>	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 <sup>3</sup>	OSHA P0
		STEL	150 ppm 560 mg/m <sup>3</sup>	OSHA P0
64742-49-0	Naphtha (pet), hydrotreated lt	TWA	500 ppm 2,000 mg/m <sup>3</sup>	OSHA Z-I
		TWA	400 ppm 1,600 mg/m <sup>3</sup>	OSHA P0
64742-89-8	Solvent naphtha (pet), lt aliph.	TWA	500 ppm 2,000 mg/m <sup>3</sup>	OSHA Z-I

		TWA	400 ppm 1,600 mg/m <sup>3</sup>	OSHA P0
67-64-1	Acetone	TWA	500 ppm	ACGIH
		STEL	750 ppm	ACGIH
		TWA	250 ppm 590 mg/m <sup>3</sup>	NIOSH REL
		TWA	1,000 ppm 2,400 mg/m <sup>3</sup>	OSHA Z-I
		TWA	750 ppm 1,800 mg/m <sup>3</sup>	OSHA P0
		STEL	1,000 ppm 2,400 mg/m <sup>3</sup>	OSHA P0
111-76-2	2-Butoxy ethanol	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m <sup>3</sup>	NIOSH REL
		TWA	50 ppm 240 mg/m <sup>3</sup>	OSHA Z-I
		TWA	25 ppm 120 mg/m <sup>3</sup>	OSHA P0
1330-20-7	Mixed xylenes	TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA Z-I
67-56-1	Methanol	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m <sup>3</sup>	NIOSH REL
		ST	250 ppm 325 mg/m <sup>3</sup>	NIOSH REL
		TWA	200 ppm 260 mg/m <sup>3</sup>	OSHA Z-I
		STEL	250 ppm 325 mg/m <sup>3</sup>	OSHA P0
		TWA	200 ppm 260 mg/m <sup>3</sup>	OSHA P0
100-41-4	Ethylbenzene	TWA	20 ppm	ACGIH
		STEL	125 ppm	ACGIH
		TWA	100 ppm 435 mg/m <sup>3</sup>	NIOSH REL
		ST	125 ppm 545 mg/m <sup>3</sup>	NIOSH REL
		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA Z-I
		TWA	100 ppm 435 mg/m <sup>3</sup>	OSHA P0
		STEL	125 ppm 545 mg/m <sup>3</sup>	OSHA P0
142-82-5	Heptane	TWA	85 ppm 350 mg/m <sup>3</sup>	NIOSH REL



		c	440 ppm 1,800 mg/m <sup>3</sup>	NIOSH REL
		TWA	500 ppm 2,000 mg/m <sup>3</sup>	OSHA Z-I
		TWA	400 ppm 1,600 mg/m <sup>3</sup>	OSHA P0
		STEL	500 ppm 2,000 mg/m <sup>3</sup>	OSHA P0

**Biological occupational exposure limits**

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Toluene	108-88-3	Toluene	In blood	Prior to last shift of workweek	0.02 mg/l	ACGI H BEI
		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGI H BEI
		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
2-Butoxy ethanol	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible)	200 mg/g Creatinine	ACGI H BEI

				after exposure ceases)		
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGI H BEI
Ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift at end of workweek	0.7 g/g creatinine	ACGI H BEI

Gastro intestinal illness caused by benzene, toluene, xylene and all products in which they are contained. Health effects caused by professional use of liquid organic solvents (indicated in the table). Occupational rhinitis and asthma. Haemopathic effects caused by benzene and all products in which it is contained.

### 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

: When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: liquid
Colour	: clear, colourless
Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
Freezing Point	: No data available
Boiling Point (Boiling point/boiling range)	: 56 - 173.5 °C (133 - 344.3 °F)
Flash point	: $\geq -20$ °C (-4 °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	: 0.809
Density	: 0.809 g/cm <sup>3</sup>
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

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**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 : Product will not undergo hazardous polymerization.  
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.  
Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidizing agents  
Acids  
Amines  
Ammonia  
halogens  
Peroxides  
Reducing agents aluminum  
Bases  
chlorates  
Chlorine  
salts of strong bases  
Lead  
sodium  
Zinc

Hazardous decomposition products : carbon dioxide and carbon monoxide

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**SECTION 11. TOXICOLOGICAL INFORMATION Acute****toxicity****Product;**

Acute oral toxicity : Acute toxicity estimate : 2,327 mg/kg  
Method: Calculation method

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Acute inhalation toxicity	: Acute toxicity estimate : 13608 ppm Exposure time: 4 h Test atmosphere: gas Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : 4,586 mg/kg Method: Calculation method
<b>ComDonents:</b>	
<b>108-88-3:</b>	
Acute oral toxicity	
Acute inhalation toxicity	: LD50 (rat, male): > 5,580 mg/kg : 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
<b>64742-49-0:</b>	
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
<b>64742-89-8:</b>	
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
<b>68410-97-9:</b>	
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
<b>67-64-1:</b>	

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
<b>111-76-2:</b> 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.
<b>1330-20-7:</b> Acute oral toxicity	: LD50 (rat, male): 3,523 mg/kg Method: EU Method B.1 (Acute Toxicity, Oral) GLP: no
Acute inhalation toxicity	: LC50 (rat, male): 6700 ppm Exposure time: 4 h Method: Directive 67/548/EEC, Annex V, B.2. Assessment: The component/mixture is moderately toxic after short term inhalation.
Acute dermal toxicity	: LD50 (rabbit): 1,100 mg/kg Assessment: The component/mixture is moderately toxic after single contact with skin.
<b>67-56-1:</b> 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.

**100-41-4:**

Acute inhalation toxicity : LC50 (Mouse, Male): 10 mg/l  
Exposure time: 4 h  
Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : LD50 (rabbit): 15,433 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

Acute dermal toxicity : 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**

**Product:**

Remarks: Irritating to skin.

**Components:**

**108-88-3:**

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

**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.

**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.

**1330-20-7:**

Species: rabbit Exposure time: 24 h Result: Irritating to skin.

**67-56-1:**

Species: rabbit Result: No skin irritation

**100-41-4:**

Species: rabbit Result: Mild skin irritation

**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:****108-88-3:**

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

**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.

**67-64-1:**

Species: rabbit Result: Irritating to eyes. Exposure time: 24 h

**111-76-2:**

Species: rabbit Result: Irritating to eyes.

**1330-20-7:**

Species: rabbit Result: Irritating to eyes.

**67-56-1:**

Species: rabbit Result: No eye irritation

**100-41-4:**

Species: rabbit Result: Mild eye irritation

**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:****108-88-3:**

Test Type: Maximisation Test (GPMT)

Species: guinea pig

Result: Did not cause sensitisation on laboratory animals. GLP: yes

**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.

**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 Species: guinea pig

Result: Did not cause sensitisation on laboratory animals.

**1330-20-7:**

Remarks: No data available

**67-56-1:**

Test Type: Maximisation Test (GPMT)

Species: guinea pig

Method: OECD Test Guideline 406

Result: Did not cause sensitisation on laboratory animals.

**100-41-4:**

Remarks: No data available

**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**

**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.
<b>64742-49-0:</b> Germ cell mutagenicity-Assessment	: Mutagenicity classification not possible from current data
<b>64742-89-8:</b> Germ cell mutagenicity-Assessment	: Mutagenicity classification not possible from current data
<b>68410-97-9:</b> 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 mutagenicity tests in mammals
<b>67-64-1:</b> 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.

**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.

**1330-20-7:**

Genotoxicity in vitro

: Test Type: Chromosome aberration test in vitro  
Test species: Chinese hamster ovary (CHO)  
Metabolic activation: with and without metabolic activation  
Method: Mutagenicity (in vitro mammalian cytogenetic test)  
Result: negative

: Test Type: Sister chromatid exchange assay in mammalian  
cells  
Test species: Chinese hamster ovary (CHO)  
Metabolic activation: with and without metabolic activation  
Result: negative

Genotoxicity in vivo

: Test Type: Dominant lethal assay  
Test species: mouse  
Application Route: Subcutaneous  
Exposure time: 8 wk  
Dose: 1.0 mL/kg  
Method: OECD Test Guideline 478  
Result: negative  
GLP: no

Germ cell mutagenicity-  
Assessment

: Animal testing did not show any mutagenic effects.

**67-56-1:**

Genotoxicity in vitro

: Test Type: DNA damage and/or repair  
Metabolic activation: with and without metabolic acti-  
vation  
Result: Ambiguous

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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.
<b>100-41-4:</b> Genotoxicity in vitro	: 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 GLP: no
	: 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 GLP: yes
Genotoxicity in vivo	: Test Type: In vivo micronucleus test Test species: mouse (male) Application Route: Oral Method: OECD Test Guideline 474 Result: negative GLP: yes
	Test Type: DNA damage and/or repair Test species: mouse (male and female) Application Route: Inhalation Method: OECD Test Guideline 486 Result: negative GLP: yes
Germ cell mutagenicity- Assessment	: In vivo tests did not show mutagenic effects
<b>142-82-5:</b> Genotoxicity in vitro	: Test Type: Chromosome aberration test in vitro

Germ cell mutagenicity-  
Assessment

Test species: Rat liver  
Metabolic activation: Without metabolic activation Method:  
OECD Test Guideline 473 Result: negative

### **Carcinogenicity**

: Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471 Result: negative

#### **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

: Did not show mutagenic effects in animal experiments.

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

Carcinogenicity - As-  
essment

: Not classifiable as a human carcinogen,

##### **64742-49-0:**

Carcinogenicity - As-  
essment

: Not classifiable as a human carcinogen,

##### **64742-89-8:**

Carcinogenicity - As-  
essment

: Not classifiable as a human carcinogen,

##### **68410-97-9:**

Species: mouse NOAEL: 50 mg/kg bw/day

Method: OECD Test Guideline 451 Result: evidence of carcinogenic activity

Carcinogenicity - As-  
essment

: Possible 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.

**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,

**1330-20-7:**

Species: mouse, (male and female)  
Application Route: Oral  
Exposure time: 103 wk  
Dose: 0, 500 or 1000 mg/kg  
Frequency of Treatment: 5 days/week  
Method: Directive 67/548/EEC, Annex V, B.32.  
Result: did not display carcinogenic properties GLP: No data available

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects,

**67-56-1:**

Carcinogenicity - Assessment : Suspected human carcinogens

**100-41-4:**

Species: mouse, (male and female)  
Application Route: Inhalation Exposure  
time: 103 wk Activity duration: 6 h Dose: 0,  
75, 250, 750 ppm

Frequency of Treatment: 5 days/week NOAEL: 250 ppm

Method: OECD Test Guideline 453 Result: evidence of carcinogenic activity

Symptoms: increased incidences of alveolar/bronchiolar neoplasms, increase incidence of hepatocellular carcinomas GLP: yes

Carcinogenicity - Assessment : Suspected human carcinogens

#### 142-82-5:

Remarks: This information is not available.

Carcinogenicity - Assessment

Carcinogenicity classification not possible from current data.

### 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 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.

: Species: rat

Application Route: inhalation (vapour)

Dose: 0, 250, 750, 1500, 3000 ppm

Effects on foetal development



	<p>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</p>
Reproductive toxicity - Assessment	: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
<b>64742-49-0:</b> Reproductive toxicity - Assessment	: Fertility classification not possible from current data. Embryotoxicity classification not possible from current data.
<b>64742-89-8:</b> Reproductive toxicity - Assessment	: Fertility classification not possible from current data. Embryotoxicity classification not possible from current data.
<b>68410-97-9:</b> Reproductive toxicity - Assessment	: Fertility classification not possible from current data. Embryotoxicity classification not possible from current data.
<b>67-64-1:</b> 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, and on development, based on animal experiments.
<b>111-76-2:</b>	

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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, and on development, based on animal experiments.
<b>1330-20-7:</b> Effects on fertility	: Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 25, 100 and 500 ppm Duration of Single Treatment: 6 h Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: > 500 ppm General Toxicity FI: NOAEC: > 500 ppm Early Embryonic Development: NOAEC: > 500 ppm Result: No reproductive effects.
Effects on foetal development	: Species: rat Application Route: Inhalation Dose: 0, 100, 500, 1000 or 2000 ppm Duration of Single Treatment: 14 d Frequency of Treatment: 6 hr/day General Toxicity Maternal: NOAEC: 500 ppm Teratogenicity: NOAEC: > 2,000 Developmental Toxicity: NOAEC: 100 ppm Result: No teratogenic effects., Developmental toxicity occurred at maternal toxicity dose levels
Reproductive toxicity - Assessment	: Animal testing did not show any effects on fertility. Damage to fetus not classifiable
<b>67-56-1:</b> Effects on fertility	: Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation

	<p>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.</p>
Effects on foetal development	<p>: 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 Teratogenicity: NOAEC: 6.65 mg/L  Result: Teratogenic effects.</p>
Reproductive toxicity - Assessment	<p>: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.</p>
<b>100-41-4:</b> Effects on fertility	<p>: Test Type: One generation study  Species: rat, male and female  Application Route: Inhalation  Dose: 0, 100, 500 and 1000 ppm  Duration of Single Treatment: 6 h  General Toxicity - Parent: NOAEC: 1,000 ppm  General Toxicity FI: NOAEC: 100 ppm  Symptoms: Reduced foetal weight. Reduced offspring weight gain.  Method: OECD Test Guideline 415  Result: No reproductive effects.  GLP: yes</p>
Effects on foetal development	<p>: Species: rat  Application Route: Inhalation  Dose: 0, 100, 500, 1000, 2000 ppm  Duration of Single Treatment: 15 d  General Toxicity Maternal: NOAEC: 500 ppm Teratogenicity: NOAEC: 2,000 ppm  Developmental Toxicity: NOAEC: 500 ppm  Symptoms: Reduced body weight  Method: OECD Test Guideline 414  Result: Developmental toxicity occurred at maternal toxicity dose levels  GLP: No data available</p>
Reproductive toxicity - Assessment	<p>: Fertility classification not possible from current data. Embryotoxicity classification not possible from current</p>

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.

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

**STOT - single exposure Product:No data available Components:**

108-88-3:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Reproductive toxicity Inhalation Assessment	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.	
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64742-49-0:

<b>Exposure routes:</b>	<b>Target Organs:</b>	<b>Assessment:</b>	<b>Remarks:</b>
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.	

64742-89-8:No data available

68410-97-9:

<b>Exposure routes:</b>	<b>Target Organs:</b>	<b>Assessment:</b>	<b>Remarks:</b>
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:

<b>Exposure routes:</b>	<b>Target Organs:</b>	<b>Assessment:</b>	<b>Remarks:</b>
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.	

III-76-2:No data available

1330-20-7:

<b>Exposure routes:</b>	<b>Target Organs:</b>	<b>Assessment:</b>	<b>Remarks:</b>
Inhalation	Respiratory system	May cause respira-	

		tory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.	
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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.	

100-41-4:No data available

142-82-5:

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

**STOT - repeated exposure****Product:**No data available**ComDonents:**

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.	
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64742-49-0:No data available

64742-89-8:No data available

68410-97-9:No data available

67-64-I:No data available III-76-2:No data available

**1330-20-7:**

<b>Exposure routes:</b>	<b>Target Organs:</b>	<b>Assessment:</b>	<b>Remarks:</b>
	Liver, Kidney, Central nervous system	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.	

67-56-I:No data available

**100-41-4:**

<b>Exposure routes:</b>	<b>Target Organs:</b>	<b>Assessment:</b>	<b>Remarks:</b>
	Auditory system	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.	

142-82-5: 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 - : Causes skin irritation.  
Assessment

##### 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/m<sup>3</sup> 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

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 irritation.  
Assessment

##### 111-76-2:

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

##### 1330-20-7:

Species: rat, male and female NOAEL:



250 mg/kg Application Route: Oral  
Exposure time: 103 wk Number of  
exposures: 5 d/wk Dose: 0, 250 or 500  
mg/kg

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

**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

**100-41-4:**

Species: rat, male and female  
NOAEL: 75 mg/kg  
Application Route: Oral  
Exposure time: 28 d  
Dose: 75, 250 and 750 mg/kg bw/day  
Method: OECD Test Guideline 407  
GLP: yes  
Symptoms: Increased kidney and liver weights

**142-82-5:**

Species: rat, male NOAEL: 12470 mg/m<sup>3</sup>  
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**

**Product:**

May be fatal if swallowed and enters airways.

**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.

**111-76-2:**

No aspiration toxicity classification

**1330-20-7:**

May be fatal if swallowed and enters airways.

**100-41-4:**

May be fatal if swallowed and enters airways.

**142-82-5:**

Aspiration Toxicity - Category 1

**Further information**

**Product:**

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

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****108-88-3:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5.5 mg/l  
 Exposure time: 96 h  
 Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia): 3.78 mg/l  
 Exposure time: 48 h  
 Test Type: Renewal

Toxicity to algae : EC50 (Chlorella vulgaris (Fresh water algae)): 134 mg/l  
 Exposure time: 3 h  
 Test Type: static test

Toxicity to bacteria : IC50 (Bacteria): 84 mg/l  
 Exposure time: 24 h  
 Test Type: Static

## Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

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

**64742-49-0:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 10 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)): 3.71 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.
<b>68410-97-9:</b> 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.
<b>67-64-1:</b> 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
<b>111-76-2:</b> 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 ( <i>Daphnia magna</i> (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 ( <i>Pseudokirchneriella subcapitata</i> (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
<b>1330-20-7:</b>	
Toxicity to fish	: LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 2.6 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 ( <i>Daphnia magna</i> (Water flea)): 1 mg/l Exposure time: 24 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae	: EC50 ( <i>Pseudokirchneriella subcapitata</i> ): 4.36 mg/l End point: Growth rate Exposure time: 73 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Ecotoxicology Assessment	
Acute aquatic toxicity	: Toxic to aquatic life.
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.
<b>67-56-1:</b>	
Toxicity to fish	: LC50 ( <i>Lepomis macrochirus</i> (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

**100-41-4:**

Toxicity to fish

: LC50 (*Oncorhynchus mykiss* (rainbow trout)): 4.2 mg/l  
Exposure time: 96 h  
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 1.8 mg/l Exposure time: 48 h  
Test Type: static test

Toxicity to algae : EC50 (*Pseudokirchneriella subcapitata*): 5.4 mg/l Exposure time: 72 h  
Test Type: static test

Toxicity to bacteria : Remarks: No data available

## 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:****108-88-3:**

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

**64742-49-0:**

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: 2 d  
Exposure time: 28 d  
GLP: yes

**67-64-1:**

Biodegradability : Remarks: Readily biodegradable

**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

**1330-20-7:**

Biodegradability : Inoculum: activated sludge  
Result: Readily biodegradable.

Biodegradation: 72 %  
Exposure time: 20 d

**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 % at 19 °C (72 h)  
Remarks: Hydrolyses on contact with water.  
Hydrolyses readily.

**100-41-4:**

Biodegradability

: Inoculum: activated sludge  
Concentration: 22 mg/l  
Result: Readily biodegradable.  
Biodegradation: 70 %  
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:****108-88-3:**

Partition coefficient: n-octanol/water

: log Pow: 2.73

**64742-49-0:**

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)

**67-64-1:**

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

**111-76-2:**

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

**1330-20-7:**

Partition coefficient: n-octanol/water : log Pow: 2.77 - 3.15

**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

**100-41-4:**

Partition coefficient: n-octanol/water : log Pow: 2.92

**Mobility in soil**

No data available

**Other adverse effects**

**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 information

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

**Components:**

**100-41-4:**

Results of PBT and vPvB assessment

: This substance is not considered to be persistent, bio-accumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

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**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.

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**SECTION 14. TRANSPORT INFORMATION****I AT A (International Air Transport Association):** UN1263, PAINT RELATED MATERIAL, 3, II, Flash Point:-20 °C(-4 °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 inhalation., Toxic by ingestion, Toxic by skin absorption, Moderate skin irritant, Moderate eye irritant, Moderate respiratory irritant, Teratogen, Reproductive hazard, Mutagen

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

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)
Mixed xylenes	1330-20-7	100	1859

**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 CFR 61):

108-88-3	Toluene	38.7177 %
67-56-1	Methanol	2.9356 %
100-41-4	Ethylbenzene	1.6696 %
107-21-1	Ethylene glycol	0.089 %
71-43-2	Benzene	0.0679 %
110-54-3	Hexane	0.0056 %
91-20-3	Naphthalene	0.0005 %
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 111SOCLM Intermediate or Final VOC's (40 CFR 60.489):

108-88-3	Toluene	38.7177 %
67-64-1	Acetone	15.6238 %
111-76-2	2-Butoxy ethanol	8.9142 %
1330-20-7	Mixed xylenes	5.3787 %
67-56-1	Methanol	2.9356 %
100-41-4	Ethylbenzene	1.6696 %
110-82-7	Cyclohexane	0.7124 %
107-21-1	Ethylene glycol	0.089 %
71-43-2	Benzene	0.0679 %
98-82-8	Cumene	0.0001 %

**Clean Water Act**

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

108-88-3	Toluene	38.7177 %
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1330-20-7			
100-41-4	Mixed xylenes		
110-82-7	Ethylbenzene		
71-43-2	Cyclohexane	5.3787	%
91-20-3	Benzene	1.6696	%
	Naphthalene	0.7124	%
		0.0679	%
		0.0005	%

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

108-88-3	Toluene		38.7177	%
1330-20-7	Mixed xylenes		5.3787	%
100-41-4	Ethylbenzene		1.6696	%
		110-82-7	Cyclohexane	0.7124
108-88-3			%	30
67-64-1		71-43-2	Benzene	0.0679
111-76-2			%	5 -
1330-20-7		91-20-3	Naphthalene	0.0005
67-56-1			%	1
100-41-4	This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307			
71-43-2				1
108-88-3	Toluene		38.7177	%
100-41-4	Ethylbenzene		1.6696	%

**US State Regulations**

**Massachusetts Right To Know**

Toluene	■	50 %
Acetone	■	
2-Butoxy ethanol	■	0 %
Mixed xylenes	■	10 %
Methanol	■	10 %
Ethylbenzene	■	0-0.1 %
Benzene	■	5 %

**Pennsylvania Right To Know**

108-88-3	Toluene	■	5 %
64742-49-0	Naphtha (pet), hydrotreated It		
64742-89-8	Solvent naphtha (pet), Italiph.		30 - 50 %
68410-97-9	Distillates, pet, It dist hydrotreat process, low-boil		30 % 0 - 30
64-1	Acetone		% 0 - 30 %
111-76-2	2-Butoxy ethanol		10 - 20 %
1330-20-7	Mixed xylenes		5 - 10 %
67-56-1	Methanol		5 - 10 %
100-41-4	Ethylbenzene		1 - 5 %
110-82-7	Cyclohexane		1 - 5 %
107- 21-1	Ethylene glycol		0.1-1 %
71-43-2	Benzene		0 - 0.1 %

**New Jersey Right To Know**

108- 88-3	Toluene		0 - 0.1 %
64742-49-0	Naphtha (pet), hydrotreated It		
64742-89-8	Solvent naphtha (pet), Italiph.		30 - 50 %
			% 0 - 30
			% 0 - 30
			%

68410-97-9	Distillates, pet, It dist hydrotreat process, low-boil	0 - 30 %
67-64-1	Acetone	10 - 20 %
111-76-2	2-Butoxy ethanol	5 - 10 %
1330-20-7	Mixed xylenes	5 - 10 %
67-56-1	Methanol	1 - 5 %
100-41-4	Ethylbenzene	1 - 5 %

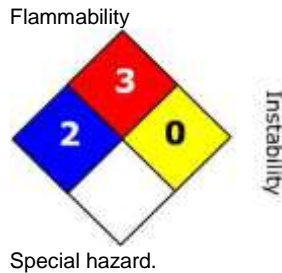
**California Prop 65**

	WARNING! This product contains a chemical known to the State of California to cause cancer.
100-41-4	Ethylbenzene
71-43-2	Benzene
91-20-3	Naphthalene
98-82-8	Cumene
	WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
	Toluene
108-88-3	Methanol
67-56-1	Benzene
71-43-2	

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

<b>Switzerland. New notified substances and declared preparations</b>	y (positive listing) (The formulation contains substances listed on the Swiss Inventory)
<b>United States TSCA Inventory</b>	y (positive listing) (On TSCA Inventory)
<b>Canadian Domestic Substances List (DSL)</b>	y (positive listing) (All components of this product are on the Canadian DSL.)
<b>Australia Inventory of Chemical Substances (AICS)</b>	y (positive listing) (On the inventory, or in compliance with the inventory)
<b>New Zealand. Inventory of Chemical Substances</b>	n (Negative listing) (Not in compliance with the inventory)
<b>Japan. ENCS - Existing and New Chemical Substances Inventory</b>	n (Negative listing) (Not in compliance with the inventory)

<b>Japan. ISHL - Inventory of Chemical Substances (METI)</b>		n (Negative listing) (Not in compliance with the inventory)
<b>Korea. Korean Existing Chemicals Inventory (KECI)</b>		y (positive listing) (On the inventory, or in compliance with the inventory)
<b>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</b>		y (positive listing) (On the inventory, or in compliance with the inventory)
<b>China. Inventory of Existing Chemical Substances in China (IECSC)</b>		y (positive listing) (On the inventory, or in compliance with the inventory)

**SECTION****HMIS III:****16. OTHER INFORMATION Further information NFPA:**

<b>HEALTH</b>	<b>2*</b>
<b>FLAMMABILITY</b>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

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.

ble to their circumstances.

**Legacy MSDS:** 00000083804

**Material number:**  
616863,616766

Key or le?	end to abbreviations and acronyms used	in the safety datasheet
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 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%