Lanobase 23 - Moderate Performance

Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Lanobase 23**

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Arterial embalming fluid

Details of the supplier of the safety data sheet

Manufacturer • Kelco Supply

20000 176th Street NW
Big Lake, MN 55309
United States
www.kelcosupply.com
info@kelcosupply.com

Telephone (General) • 800-328-7720

Emergency telephone number

Manufacturer • 800-424-9300 - CHEMTREC

Manufacturer • 202-483-7616 - CHEMTREC International

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Flammable Liquids 4
Acute Toxicity Oral 4
Acute Toxicity Dermal 3
Skin Corrosion 1C
Skin Sensitization 1A
Serious Eye Damage 1
Acute Toxicity Inhalation 3
Germ Cell Mutagenicity 1B
Carcinogenicity 1A
Reproductive Toxicity 1B
Specific Target Organ Toxicity Single Exposure 2
Specific Target Organ Toxicity Repeated Exposure 1
Specific Target Organ Toxicity Repeated Exposure 2

Label elements

OSHA HCS 2012

DANGER

Hazard statements •
Combustible liquid
Harmful if swallowed
Toxic in contact with skin
Causes severe skin burns and eye damage.
May cause an allergic skin reaction
Causes serious eye damage
Toxic if inhaled
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs.
Causes damage to organs through prolonged or repeated exposure.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention •
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
Do not breathe mists, vapours, and/or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, clothing , and eye/face protection , .

Response •
In case of fire: Use appropriate media for extinction.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If on skin: Wash with plenty of water .
Take off immediately all contaminated clothing and wash it before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation or rash occurs: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.

Storage/Disposal •
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information •
This product consists of an ingredient of unknown toxicity of 0-1.33 percent via the oral route, 1.773-4.433 percent via the dermal route, and 1.773-4.433 percent via the inhalation route.

Other hazards

OSHA HCS 2012 •
Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

Classification of the substance or mixture

WHMIS •
Combustible Liquids - B3
Very Toxic - D1A
Other Toxic Effects - D2A
Other Toxic Effects - D2B

Label elements

WHMIS

- Combustible Liquids - B3
  Very Toxic - D1A
  Other Toxic Effects - D2A
  Other Toxic Effects - D2B

Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	**Identifiers**	**%**	**LD50/LC50**	**Classifications According to Regulation/Directive**	**Comments**
Methanol	**CAS:**67-56-1	N/A	Inhalation-Rat LC50 • 64000 ppm 4 Hour(s) Skin-Rabbit LD50 • 15800 mg/kg Ingestion/Oral-Rat LD50 • 5600 mg/kg	**OSHA HCS 2012:** Flam. Liq. 2; Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3: Narc.; STOT RE 1 (Eyes); STOT SE 2 (Eyes); Repr. 2	NDA
Formaldehyde	**CAS:**50-00-0	N/A	Ingestion/Oral-Rat LD50 • 100 mg/kg Inhalation-Rat LC50 • 203 mg/m³ Skin-Rabbit LD50 • 270 mg/kg	**OSHA HCS 2012:** Skin Corr. 1C; Eye Dam. 1; Acute Tox. 3 (orl, skn); Carc. 1A; Skin Sens. 1A; Muta. 1B; Acute Tox. 2 (inhl)	NDA
Proprietary	*Proprietary*	N/A	Ingestion/Oral-Rat LD50 • 2500 mg/kg	**OSHA HCS 2012:** Repr. 1B; STOT RE 2 (Kidney)	NDA
Proprietary	*Proprietary*	N/A	Ingestion/Oral-Rat LD50 • 1200 mg/kg	**OSHA HCS 2012:** Acute Tox 4 (orl); Repr. 2	NDA
Proprietary	*Proprietary*	N/A	NDA	**OSHA HCS 2012:** Eye Irrit. 2	NDA
Proprietary	*Proprietary*	N/A	Inhalation-Rat LC50 • 16000 ppm 8 Hour(s) Skin-Rabbit LD50 • 12800 mg/kg Ingestion/Oral-Rat LD50 • 5000 mg/kg	**OSHA HCS 2012:** Flam. Liq. 2; Eye Irrit. 2; Muta. 2; Repr. 2; STOT SE 3: Narc.; STOT SE 3: Resp. Irrit.; STOT RE 2 (Eyes, Inhl.)	NDA
Proprietary	*Proprietary*	N/A	Ingestion/Oral-Rat LD50 • 3700 mg/kg	**OSHA HCS 2012:** Exposure limits	NDA

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: First-Aid Measures

Description of first aid measures

Inhalation
- Move victim to fresh air. Administer oxygen if breathing is difficult. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin
- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eye
- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

Ingestion
- Rinse mouth. Do NOT induce vomiting. Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media
- SMALL FIRES: Dry chemical, CO2, water spray or alcohol-resistant foam.
  LARGE FIRES: Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media
- No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- Containers may explode when heated.
  HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
  Many liquids are lighter than water.
  Vapors may form explosive mixtures with air.
  Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
  Vapors may travel to source of ignition and flash back.
  Vapor explosion hazard indoors, outdoors or in sewers.
  Runoff to sewer may create fire or explosion hazard.
  Formaldehyde can oxidize with air and heat to give corrosive formic acid fumes.

Hazardous Combustion Products
- No data available

Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
  Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
  Wear positive pressure self-contained breathing apparatus (SCBA).
  Move containers from fire area if you can do it without risk.
  LARGE FIRES: Cool containers with flooding quantities of water until well after fire is

out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. CAUTION: Victim may be a source of contamination. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
  Absorb small amounts on paper or rags and remove in a labeled, covered container.
  For large spills absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
  Use clean non-sparking tools to collect absorbed material.
  A vapor suppressing foam may be used to reduce vapors.
  All equipment used when handling the product must be grounded.
  LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
  LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Use only with adequate ventilation. Handle and open container with care. Keep away from heat, sparks, and flame. Take precautionary measures against static charges. All equipment used when handling the product must be grounded. Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist, vapours and/or spray. Do not get in eyes or on skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a dry, well-ventilated place above 35°F. Keep away from fire.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Proprietary (Proprietary)	STELs	6 mg/m3 STEL (inhalable fraction, listed under Borate compounds, inorganic)	Not established	Not established
		2 mg/m3 TWA (inhalable fraction,		

	TWAs	listed under Borate compounds, inorganic)	1 mg/m3 TWA	Not established
Proprietary (Proprietary)	STELs	6 mg/m3 STEL (inhalable fraction, listed under Borate compounds, inorganic)	Not established	Not established
	TWAs	2 mg/m3 TWA (inhalable fraction, listed under Borate compounds, inorganic)	1 mg/m3 TWA	Not established
Proprietary (Proprietary)	TWAs	20 ppm TWA (listed under Turpentine and selected monoterpenes)	Not established	Not established
Proprietary (Proprietary)	TWAs	200 ppm TWA	400 ppm TWA; 980 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA
	STELs	400 ppm STEL	500 ppm STEL; 1225 mg/m3 STEL	Not established
Proprietary (Proprietary)	STELs	6 mg/m3 STEL (inhalable fraction, listed under Borate compounds, inorganic)	Not established	Not established
	TWAs	2 mg/m3 TWA (inhalable fraction, listed under Borate compounds, inorganic)	Not established	Not established
Methanol (67-56-1)	TWAs	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA	200 ppm TWA; 260 mg/m3 TWA
	STELs	250 ppm STEL	250 ppm STEL; 325 mg/m3 STEL	Not established
Formaldehyde (50-00-0)	STELs	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	TWAs	Not established	0.016 ppm TWA	0.75 ppm TWA
	Ceilings	0.3 ppm Ceiling	0.1 ppm Ceiling (15 min)	Not established

Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves. Wear protective clothing - Splash apron

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
STEL = Short Term Exposure Limits are based on 15-minute exposures
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear red liquid with a pungent odor.
Color	Clear red.	Odor	Pungent
Odor Threshold	No data available		
General Properties			
Boiling Point	190 to 210 F(87.7778 to 98.8889 C)	Melting Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Soluble 100 %
Viscosity	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	> 1 Air=1
Evaporation Rate	No data available	Volatiles (Wt.)	95 %
Volatiles (Vol.)	95 %		
Flammability			
Flash Point	> 185 F(> 85 C) CC (Closed Cup)	UEL	73 % (Formaldehyde)
LEL	7 % (Formaldehyde)	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Keep away from heat, sparks, and flame.

Incompatible materials

- May react violently if mixed with phenol, strong acid and alkali or oxidizing agents.

Hazardous decomposition products

- No data available

Section 11 - Toxicological Information

Information on toxicological effects

Components		
		Acute Toxicity: Ingestion/Oral-Rat LD50 • 100 mg/kg; Inhalation-Rat LC50 • 203 mg/m³; *Peripheral Nerve and Sensation:***Spastic paralysis with or without sensory change**; *Behavioral:***Convulsions or effect on seizure threshold**; *Behavioral:***Excitement**; Inhalation-Rat LC50 • 250 ppm 4 Hour(s); Inhalation-Rat TCLo • 15 ppm; *Sense Organs and Special Senses:Olfaction:***Tumors**; *Lungs, Thorax, or Respiration:***Sputum**;

Formaldehyde (N/A)	50-00-0	*Gastrointestinal*:**Decreased motility or constipation**; Skin-Rabbit LD50 • 270 µL/kg; **Irritation:** Eye-Rabbit • 10 mg • Severe irritation; **Mutagen:** Mutation in Mammalian Somatic Cells • Unreported Route-Mouse • Lymphocyte (Somatic cell) • 74 mg/L; **Reproductive:** Inhalation-Rat TCLo • 12 µg/m³ 24 Hour(s)(15D pre/1-22D preg); *Reproductive Effects:Effects on Newborn*:**Growth statistics (e.g., reduced weight gain)**; *Reproductive Effects:Effects on Newborn*:**Other postnatal measures or effects**; **Tumorigen / Carcinogen:** Inhalation-Rat • 15 ppm 6 Hour(s) 78 Week(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Sense Organs and Special Senses:Olfaction*:**Tumors**
Methanol (N/A)	67-56-1	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 5600 mg/kg; Inhalation-Rat LC50 • 64000 ppm 4 Hour(s); Skin-Rabbit LD50 • 15800 mg/kg; **Irritation:** Eye-Rabbit • 100 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; **Mutagen:** Cytogenetic analysis • Ingestion/Oral-Mouse • 1 g/kg; DNA damage • Ingestion/Oral-Rat • 10 µmol/kg; **Reproductive:** Inhalation-Mouse TCLo • 1500 ppm 6 Hour(s)(7-9D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Central nervous system**; **Tumorigen / Carcinogen:** Inhalation-Rat TCLo • 1000 ppm 2 Year(s)-Intermittent; *Tumorigenic*:**Equivocal tumorigenic agent by RTECS criteria**; *Lungs, Thorax, or Respiration*:**Tumors**; *Tumorigenic*:**Increased incidence of tumors in susceptible strains**
Proprietary (N/A)	*Proprietary*	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 2500 mg/kg; *Behavioral*:**Convulsions or effect on seizure threshold**; *Behavioral*:**Ataxia**; **Irritation:** Skin-Human • 15 mg 3 Day(s)-Intermittent • Mild irritation; **Multi-dose Toxicity:** Ingestion/Oral-Rat TDLo • 1000 mg/kg 10 Day(s)-Intermittent; *Kidney, Ureter, and Bladder*:**Changes in tubules (including acute renal failure, acute tubular necrosis)**; **Reproductive:** Ingestion/Oral-Rat TDLo • 76 mg/kg (20D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; Ingestion/Oral-Rat TDLo • 3260 mg/kg (1-20D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Central nervous system**
Proprietary (N/A)	*Proprietary*	**Irritation:** Eye-Rabbit • 100 mg • Severe irritation
Proprietary (N/A)	*Proprietary*	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 1200 mg/kg; **Multi-dose Toxicity:** Ingestion/Oral-Rabbit TDLo • 22680 mg/kg 12 Week(s)-Intermittent; *Blood*:**Leukopenia**; *Blood*:**Changes in serum composition (e.g., TP, bilirubin cholesterol)**; *Blood*:**Changes in erythrocyte (RBC) count**; **Reproductive:** Ingestion/Oral-Rat TDLo • 16750 µg/kg (30D male); *Reproductive Effects:Paternal Effects*:**Testes, epididymis, sperm duct**; *Reproductive Effects:Paternal Effects*:**Prostate, seminal vesicle, Cowper's gland, accessory glands**
Proprietary (N/A)	*Proprietary*	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 5000 mg/kg; *Behavioral*:**General anesthetic**; Inhalation-Rat LC50 • 16000 ppm 8 Hour(s); Inhalation-Guinea Pig TCLo • 980 mg/m³ 24 Hour(s); *Sense Organs and Special Senses:Ear*:**Other**; *Behavioral*:**General anesthetic**; *Lungs, Thorax, or Respiration*:**Other changes**; Skin-Rabbit LD50 • 12800 mg/kg; **Irritation:** Eye-Rabbit • 100 mg • Severe irritation; Skin-Rabbit • 500 mg • Mild irritation; **Multi-dose Toxicity:** Inhalation-Mouse TCLo • 5000 ppm 6 Hour(s) 13 Week(s)-Intermittent; *Behavioral*:**General anesthetic**; *Behavioral*:**Ataxia**; *Liver*:**Changes in liver weight**; Inhalation-Rat TCLo • 1000 mg/m³ 6 Hour(s) 4 Week(s)-Intermittent; *Sense Organs and Special Senses:Eye*:**Optic nerve neuropathy**; Inhalation-Rat TCLo • 500 mg/m³ 4 Hour(s) 122 Day(s)-Intermittent; *Liver*:**Multiple effects**; *Kidney, Ureter, and Bladder*:**Other changes**; *Nutritional and Gross Metabolic:Gross Metabolite Changes*:**Weight loss or decreased weight gain**; Inhalation-Rat TCLo • 20 mg/m³ 24 Hour(s) 90 Day(s)-Continuous; *Brain and Coverings*:**Other degenerative changes**; *Lungs, Thorax, or Respiration*:**Other changes**; *Liver*:**Multiple effects**; Inhalation-Rat TCLo • 100 mg/m³ 4 Hour(s) 17 Week(s)-Intermittent; *Kidney, Ureter, and Bladder*:**Other changes in urine composition**; *Blood*:**Changes in serum composition (e.g., TP, bilirubin cholesterol)**; *Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels*:**True cholinesterase**; **Mutagen:** Cytogenetic analysis • Inhalation-Rat • 1030 µg/m³ 16 Week(s)-Intermittent; **Reproductive:** Inhalation-Rat TCLo • 3500 ppm 7 Hour(s)(1-19D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; Inhalation-Rat TCLo • 10000 ppm 7 Hour(s)(1-19D preg); *Reproductive Effects:Effects on Fertility*:**Pre-implantation mortality**; *Reproductive Effects:Effects on Fertility*:**Post-implantation mortality**; *Reproductive Effects:Effects on Embryo or Fetus*:**Fetal death**

GHS Properties	Classification

Acute toxicity	**OSHA HCS 2012** • Acute Toxicity - Dermal 3 - ATEmix (dermal) = 990 mg/kg; Acute Toxicity - Inhalation 3 - ATEmix (Inhl) = 1124 ppmV/4H; Acute Toxicity - Oral 4 - ATEmix (oral) = 446 mg/kg
Aspiration Hazard	**OSHA HCS 2012** • No data available
Carcinogenicity	**OSHA HCS 2012** • Carcinogenicity 1A
Germ Cell Mutagenicity	**OSHA HCS 2012** • Germ Cell Mutagenicity 1B
Skin corrosion/Irritation	**OSHA HCS 2012** • Skin Corrosion 1C
Skin sensitization	**OSHA HCS 2012** • Skin Sensitizer 1A
STOT-RE	**OSHA HCS 2012** • Specific Target Organ Toxicity Repeated Exposure 1; Specific Target Organ Toxicity Repeated Exposure 2
STOT-SE	**OSHA HCS 2012** • Specific Target Organ Toxicity Single Exposure 2
Toxicity for Reproduction	**OSHA HCS 2012** • Toxic to Reproduction 1B
Respiratory sensitization	**OSHA HCS 2012** • No data available
Serious eye damage/Irritation	**OSHA HCS 2012** • Serious Eye Damage 1

Potential Health Effects

Inhalation

Acute (Immediate)
- Toxic if inhaled. May cause corrosive burns - irreversible damage.

Chronic (Delayed)
- Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

Acute (Immediate)
- Toxic in contact with skin. Causes severe skin burns and eye damage. May cause skin sensitization. Symptoms include redness, and skin rash.

Chronic (Delayed)
- Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

Acute (Immediate)
- Causes serious eye damage.

Chronic (Delayed)
- Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

Acute (Immediate)
- Harmful if swallowed. May cause irreversible damage to mucous membranes.

Chronic (Delayed)
- Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal distrubances.

Other

Acute (Immediate)
- Acute methanol toxicity in humans causes blurred vision, photophobia, and pains in the eyes. Depending on the amount of methanol consumed, the individual susceptibility and the time at which treatment began, these visual disturbances may either recede or develop within a few days into visual impairments or total blindness.

Chronic (Delayed)
- The neurotoxic effects of methanol on the visual system can involve transient abnormalities such as peripapillary edema, optic disc hyperemia, diminished pupillary reactions to light, and central scotomata. Permanent ocular abnormalities include optic disc pallor, attenuation of arterioles, sheathing of arterioles, diminished pupillary reactions to light, diminished visual acuity, central scotomata, and other nerve fiber bundle defects. Boric acid may cause effects on the kidneys.

Mutagenic Effects
- Repeated and prolonged exposure may cause mutagenic effects.

Carcinogenic Effects
- Repeated and prolonged exposure may cause cancer.

Carcinogenic Effects				
	CAS	**OSHA**	**IARC**	**NTP**
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen

Reproductive Effects

- Repeated and prolonged exposure may affect the reproductive system.

Key to abbreviations

LC = Lethal Concentration
LD = Lethal Dose
TC = Toxic Concentration
TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

- Non-mandatory section - information about this substance not complied for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not complied for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not complied for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not complied for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not complied for this reason.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NDA	Consumer commodity	ORM-D	NDA	NDA
TDG	NDA	Consumer commodity	NDA	NDA	NDA

Special precautions for user

- None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute, Chronic, Fire

Inventory				
Component	**CAS**	**Canada DSL**	**Canada NDSL**	**TSCA**
Proprietary	*Proprietary*	Yes	No	Yes
Proprietary	*Proprietary*	Yes	No	Yes
Proprietary	*Proprietary*	Yes	No	Yes
Formaldehyde	50-00-0	Yes	No	Yes
Proprietary	*Proprietary*	Yes	No	Yes
Methanol	67-56-1	Yes	No	Yes
Proprietary	*Proprietary*	No	No	No

Canada

Labor

Canada - WHMIS - Classifications of Substances

• *Proprietary*	*Proprietary*	B2
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	A, B1, D1A, D2A, D2B; B3, D1A, D2A, D2B, E (regulated under Formol)
• *Proprietary*	*Proprietary*	B2, D2B (including 70%)
• Methanol	67-56-1	B2, D1B, D2A, D2B (including 28%)
• *Proprietary*	*Proprietary*	D2A
• *Proprietary*	*Proprietary*	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• *Proprietary*	*Proprietary*	1 %
• *Proprietary*	*Proprietary*	1 %
• Formaldehyde	50-00-0	0.1 %
• *Proprietary*	*Proprietary*	1 %
• Methanol	67-56-1	1 %
• *Proprietary*	*Proprietary*	1 %
• *Proprietary*	*Proprietary*	Not Listed

Environment

Canada - CEPA - Priority Substances List

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	Priority Substance List 2 (substance considered toxic)
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ

• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	2 ppm STEL (See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level (See 29 CFR 1910.1048); 0.75 ppm TWA (See 29 CFR 1910.1048)
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	100 lb final RQ; 45.4 kg final RQ
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	5000 lb final RQ; 2270 kg final RQ
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	100 lb EPCRA RQ
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	500 lb TPQ
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	0.1 % de minimis concentration
• *Proprietary*	*Proprietary*	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
• Methanol	67-56-1	1.0 % de minimis concentration
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	carcinogen, initial date 1/1/88 (gas)
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	developmental toxicity, initial date 3/16/12

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	40 µg/day NSRL (gas)
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Formaldehyde	50-00-0	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• Methanol	67-56-1	Not Listed
• *Proprietary*	*Proprietary*	Not Listed
• *Proprietary*	*Proprietary*	Not Listed

Other Information

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

Section 16 - Other Information

Last Revision Date
- 24/April/2015

Preparation Date
- 01/May/2012

Disclaimer/Statement of Liability
- The information on this Safety Data Sheet (SDS) has been compiled from 29 CFR 1910.1200, supplier SDS, other technical references and our testing and experience. Users are responsible for determining the suitability of this product and information for their circumstances and for knowing of and complying with all pertinent federal and state regulations.

Key to abbreviations

NDA = No Data Available