SAFETY DATA SHEET

DATE ISSUED :	8/10/2018
SDS REF. No :	2059-CLE18773

2059-CLE18773 VINYL NITRO SEALER GL.LAC. MUSICAL INSTRUMENTS

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 2059-CLE18773 VINYL NITRO SEALER GL.LAC. MUSICAL INSTRUMENTS

PRODUCT CODE: 2059-CLE18773
PRODUCT USE: Industrial Solventborne Paint

MANUFACTURER
Cardinal Industrial Finishes
1329 Potrero Ave

S. El Monte, CA,
626 444-9274

24 HR. EMERGENCY TELEPHONE NUMBER
CHEMTREC (US Transportation): (800)424-9300
CHEMTREC (International Transportation) : 1(202)483-7616
WEB: WWW.CARDINALPAINT.COM

2. HAZARDS IDENTIFICATION

PICTOGRAMS

SIGNAL WORD : DANGER

HAZARD STATEMENTS :
H226 Flammable liquid and vapor.
H301+H331+H331 Toxic if swallowed, in contact with skin or inhaled.
H302+H332 Harmful if swallowed or inhaled.
H304 May be fatal if swallowed and enters airways.
H312 Harmful if contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H360 May damage fertility or unborn child.
H401 Toxic to aquatic life.
H402 Harmful to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS : P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P403 Store in a well-ventilated place.
P501 Dispose of in accordance with Local, Regional, State, Federal and International Regulations.
R40 Limited evidence of a carcinogenic effect.
S36 Wear suitable protective clothing.
S37 Wear suitable gloves.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number	
Ethyl Alcohol	35% - 40%	64-17-5	
n-Butyl Acetate	15% - 20%	123-86-4	
Aliphatic Solvent	10% - 15%	64742-47-8	
Acetone	5% - 10%	67-64-1	
Isopropyl Alcohol	5% - 10%	67-63-0	
Pseudocumene	5% - 10%	95-63-6	
Methyl Isobutyl Ketone	1% - 5%	108-10-1	
Methyl Amyl Ketone	1% - 5%	110-43-0	
Methyl Alcohol	1% - 5%	67-56-1	
Dioctyl Phthalate	1% - 5%	117-81-7	
n-Methyl-2-pyrrolidone	1% - 5%	872-50-4	
Phenylethane	0.10% - 0.50%	100-41-4	

4. FIRST AID MEASURES

Description of first aid measures.

EYES CONTACT : Flush with large quantities of water for 15 to 30 minutes. Remove contact lenses. Keep eyes wide open while rising. If eye irritation persists: Get medical attention.

SKIN CONTACT : Wash exposed area with mild soap and water for 15 to 30 minutes. Remove contaminated clothing. Repeated exposure may cause dryness or cracking.

INGESTION : Rinse mouth. Do NOT induce vomiting. Keep victim warm and seek immediate attention.

INHALATION : Remove to fresh air and keep in a position comfortable to breath. Call a doctor/physician if you feel unwell. Get medical attention.

Most important symptoms and effects, both acute and delayed. Symptoms/injuries: Eye irritation
Symptoms/injuries after inhalation: May cause drowsiness or dizziness.
Symptoms/injuries after eye contact: Cause serious eye irritation.
Symptoms/injuries after ingestion: Ingestion may cause nausea, vomiting and diarrhea.
Indication of any immediate medical attention and special treatment needed.
If medical advise is needed, have product container or label on hand.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA : In the event of a fire, use specifically suitable extinguishing agents. Suitable extinguishing media: Foam, alcohol resistant foam, CO2, water fog. Unsuitable extinguishing media: Do not use heavy water stream. A heavy water stream my spread burning liquid.

FIRE FIGHTING PROCEDURE : Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering the environment.
Protection during firefighting: Firefighters should wear full protective gear. Do not enter fire area without proper protective equipment, including self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure modes.

UNUSUAL FIRE AND EXPLOSION HAZARD : Fire hazard: Highly flammable/liquid or vapor.
Explosive hazard: May form flammable/explosive vapor-air mixture.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES :
General measures: Remove ignition sources. Use special care to avoid static electric charges. No smoking.

FOR NON-EMERGENCY PERSONNEL :
For non-Emergency procedures: Evacuate unnecessary personnel.

FOR EMERGENCY RESPONDERS :
Equip cleanup crew with proper protection. Avoid breathing fume, vapors.

ENVIRONMENTAL PRECAUTIONS :
Prevent entry to sewers and public waters.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP :
Collect damaged aerosols and use absorbent and/or inert material, then place in suitable container.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING : Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when you are leaving work. Provide good ventilation in process area to prevent formation of vapor. No smoking. Use only non-sparking tools. Use outdoors or in a well ventilated area. Avoid breathing fume, vapors.
Hygiene measures: Wash Skin thoroughly after handling.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES : Storage conditions: Store in a dry, cool and well-ventilated place away from: Heat sources. Direct sunlight.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Source of ignition. Direct sunlight. Heat Sources.

8. EXPOSURE CONTROLS\PERSONAL PROTECTION

Acetone(67-64-1)		
USA ACGIH	ACGIH STEL TLV	750 ppm
USA ACGIH	ACGIH TWA TLV	500 ppm
USA NIOSH	NIOSH STEL (Table Z-1)	1,000 ppm, 2,400 mg/m3
USA NIOSH	NIOSH TWA	250 ppm, 590 mg/m3
USA OSHA	OSHA TWA (Table Z-1)	1,000 ppm, 2,400 mg/m3
Aliphatic Solvent(64742-47-8)		
USA ACGIH	ACGIH (TLV) TWA	200 mg/m3
USA NIOSH	NIOSH REL (ST)	10 mg/m3
USA NIOSH	NIOSH REL (TWA)	5 mg/m3
USA OSHA	OSHA OEL (TLV) TWA Table Z-1	500 ppm, 2,000 mg/m3
USA OSHA	OSHA OEL Table Z-1	5 mg/m3
Cumene(98-82-8)		
USA ACGIH	ACGIH (TLV) TWA	50 ppm
USA NIOSH	NIOSH (TWA) REL	50 ppm, 245 mg/m3
USA OSHA	OSHA (TWA) Table Z-1	50 ppm, 245 mg/m3
Dioctyl Phthalate(117-81-7)		
ACGIH TWA	TWA	5 mg/m3
NIOSH REL ST	ST	10 mg/m3
NIOSH REL TWA	TWA	5 mg/m3
OSHA P0 STEL	STEL	10 mg/m3
OSHA P0 TWA	TWA	5mg/m3
OSHA Z-1 TWA	TWA	5 mg/m3
Ethyl Alcohol(64-17-5)		
USA ACGIH	ACGIH TWA (TLV)	1,000 ppm
USA NIOSH	NIOSH TWA	1,000 ppm, 1,900 mg/m3
USA OSHA	OSHA TWA (Table Z-1)	1,000 ppm, 1,900 mg/m3
Ethylene glycol mono butyl ether(111-76-2)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA NIOSH	NIOSH REL (ppm)	5 ppm
USA OSHA	OSHA PO TWA (ppm)	25 ppm
USA OSHA	OSHA TABLE Z-1 TWA (mg/m3)	50 ppm, 240 mg/m3

Isobutyl Alcohol(78-83-1)		
USA ACGIH	ACGIH TWA	50 ppm
USA OSHA	OSHA PEL	100 ppm, 300 mg/m3
Isopropyl Alcohol(67-63-0)		
USA ACGIH	ACGIH STEL	400 ppm
USA ACGIH	ACGIH TWA	200 ppm
USA NIOSH	NIOSH IDLH	2,000 ppm
USA OSHA	OSHA TWA	400 ppm, 980 mg/m3
Methyl Alcohol(67-56-1)		
USA ACGIH	ACGIH (TLV) STEL	250 ppm
USA ACGIH	ACGIH (TLV) TWA	200 ppm
USA NIOSH	NIOSH (REL) ST	250 ppm, 325 mg/m3
USA NIOSH	NIOSH (REL) TWA	200 ppm, 260 mg/m3
USA OSHA	OSHA (OEL) TWA (Table Z-1)	200 PPM, 260 mg/m3
Methyl Amyl Ketone(110-43-0)		
USA ACGIH	ACGIH TLV TWA	50 ppm
USA OSHA	OSHA PEL (Table Z-1)	100 ppm, 465 mg/m3
Methyl Isobutyl Ketone(108-10-1)		
USA ACGIH	ACGIH TLV (ppm)	75 ppm
USA NIOSH REL	NIOSH STEL (ppm)	75 ppm
USA NIOSH REL	NIOSH TWA (ppm)	50 ppm
USA OSHA	OSHA TWA (ppm)	100 ppm
n-Butyl Acetate(123-86-4)		
USA ACGIH	ACGIH STEL	200 ppm
USA ACGIH	ACGIH TWA	150 ppm
USA OSHA	OSHA PEL (Table Z-1)	150 ppm, 710 mg/m3
n-Methyl-2-pyrrolidone(872-50-4)		
USA ACGIH	ACGIH PEL	N/E
USA OSHA	OSHA TWA	N/E
Phenylethane(100-41-4)		
USA ACGIH	ACGIH STEL	125 ppm
USA ACGIH	ACGIH TWA	20 ppm
USA NIOSH	NIOSH REL	100 ppm, 435 mg/m3
USA NIOSH	NIOSH REL (ST)	125 ppm, 545 mg/m3
USA OSHA	OSHA STEL	125 ppm, 545 mg/m3
USA OSHA	OSHA TWA (Table Z-1)	100 ppm, 435 mg/m3
Phosphoric Acid(7664-38-2)		
USA ACGIH	ACGIH (TLV) STEL	3 mg/m3
USA ACGIH	ACGIH (TLV) TWA	1 mg/m3
USA NIOSH	NIOSH (TWA) REL	1 mg/m3
USA NIOSH	NIOSH (TWA) ST	3 mg/m3
USA OSHA	OSHA (TWA) Table Z-1	1 mg/m3
Pseudocumene(95-63-6)		
USA NIOSH	NIOSH (TWA) REL	25 ppm, 125 mg/m3
Xylene(1330-20-7)		
USA ACGIH	ACGIH STEL	150 ppm
USA ACGIH	ACGIH TWA	100 ppm
USA OSHA	OSHA TWA (Table Z-1)	100 PPM, 435 mg/m3

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : If TLV of the product or any component is exceeded, a NIOSH approved dust respirator is advised in absence of environmental control. OSHA Regulations also permit other NIOSH dust respirators under specified conditions. (See your Safety Equipment Supplier) Engineering or administrative controls should be implemented to reduce exposure.

HAND PROTECTION REMARKS : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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

SKIN AND BODY PROTECTION : Wear impervious clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	**:**	Liquid
Color	**:**	Various colors depending on the pigmentation.
Odor	**:**	Characteristic. Sweet. Mint like.
Odor threshold	**:**	No data available.
Ph	**:**	N/A – See Technical Data Sheet
Evaporation rate	**:**	Slower Than Ether
Melting point	**:**	-94.7 C (-138.46 F)
Freezing point	**:**	No data available.
Boiling point	**:**	133.0 deg F TO 397.0 deg F
Flash point	**:**	-4.00 deg F
Lower explosion limit	**:**	.3
Upper explosion limit	**:**	36.5
Vapor pressure	**:**	185 mm Hg
Vapor density	**:**	Heavier than air
Relative density	**:**	No data available.
Density	**:**	6.9792
Solubility	**:**	No data available.
Partion coefficient: n-octanol/water	**:**	No data available.
Autoignition temperature	**:**	No data available.
Decomposition temperature	**:**	No data available.

10. STABILITY AND REACTIVITY

REACTIVITY : No dangerous reaction known under conditions of normal use.

CHEMICAL STABILITY : Stable under normal conditions.

CONDITIONS TO AVOID : Heat, flames and sparks. Extremely high temperatures and direct sunlight.

INCOMPATIBLE MATERIALS : Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

11. TOXICOLOGICAL INFORMATION

Acetone(67-64-1)	
Aspiration toxicity	Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above TLV value may cause narcotic effects., Solvents may degrease the skin.
Carcinogenicity	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 a wk, NOAEL: 79; Result: did not display carcinogenic properties., Carcinogenicity-Assessment: Not classified as a human carcinogen.
Germ cell mutagenicity	Test Type: mammalian cell gene mutation assay. Test species: Mouse Lymphoma, Metabolic activation: Without metabolic activation; Method: OECD Guideline 476; Result: negative; Test Type: Ames test, Metabolic activation: Without metabolic activation; Method: OECD Guideline 471; Result: negative, Test Type: Chromosome aberration test in vitro, Test species: Chinese hamster ovary (CHO), Metabolic activation: Without metabolic activation; Method: OECD Guideline 473; Result: negative; Genotoxicity in vivo: Test Type: I vivo micronucleus test. Test species: Mouse, Application Route: Oral, Exposure: 13 wk, Dose: 5,000, 10,000, 20,000 ppm, Result: negative
Germ cell mutagenicity Assessment	Animal testing did not show any mutagenic effects.
LC50 (rat) Inhalation	76 mg/l (4 h exposure)
LD50 (rat) Oral	5,800 mg/kg; Symptoms: tremors
LD50 Dermal	>7,426 mg/kg
Repeated dose exposure	Species: mouse, male, NOAEL: 20,000, 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, NAOEL 20000, LAOEL: 50000; 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; Repeated dose toxicity Assessment: causes mild skin irritation., Causes serious eye irritation.

Reproductive toxicity	Effects on fertility: Species: rat, male; Application Route: oral; Dose: 0, 5,000, 10,000 mg/l; Frequency of Treatment: 7 days/week; General Toxicity - Parent: LOAEL: 10,000; Fertility: 10,000; Effects on fetal development: Species: rat; Application Route: Inhalation; Dose: 0, 440, 2200, 11,000 ppm; Frequency of Treatment: 7 days/week; General Toxicity Material: NOAEC: 2,200 ppm; Tetragenicity: NOAEC: 2,200 ppm; Embryo-fetal toxicity:: NOAEC: 2,200 ppm; Result: No teratogenic potential. GLP: No data available.; Reproductive toxicity Assessment: Did not show teratogenic effects in animal experiments.
Respiratory or skin sensitsation	Test type: Maximization test, Species: guinea pig, Assessment: Does not cause skin sensitization. Result: Did not cause sensitization on laboratory animals.
Serious eye damage/eye irritation	Species: rabbit, Result : Slightly irritating to eyes, Exposure time: 24 h, Classification: Irritating to eyes, Remarks: Eye irritation.
Skin corrosion/irritation	Species: rabbit, Exposure time: 24 h, Classification: Not irritating to skin, Method: In vivo, Result: Mild irritation, Remarks: Repeated or prolonged contact with the mixture may cause removal natural fat from the skin resulting in desiccation of the skin.
STOT - single exposure	Exposure routes: Inhalation (vapor); Assessment: May cause drowsiness or dizziness.
STOT- repeated exposure	No data available.
Aliphatic Solvent(64742-47-8)	
Acute Dermal toxicity	No data available.
Acute Inhalation toxicity	No data available.
Acute toxicity	No data available.
Additional Information	RTECS: Not available Prolonged or repeated exposure to skin causes defatting and dermatitis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Aspiration hazard	No data available.
Carcinogenicity	IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Distillates (petroleum), hydrotrated light, kerosene - unspecified) 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. 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.
Germ cell mutagenicity	Reverse mutation assay S. typhimurium Result: negative
Reproductive toxicity	No data available.
Respiratory or skin sensitization	Draize Test - Guinea pig Result: Does not cause skin sensitization.
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Cumene(98-82-8)	
Additional Information	RTECS: GR8575000
Aspiration hazard	No data available.
Carcinogenicity	Carcinogenicity IARC: 2B - Group 2B: Possibly carcinogenic to humans (Cumene) 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. 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. 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.
Dermal	No data available.
Germ cell mutagenicity	invitro assay, S. typhimurium, Result: negative
Inhalation:	No data available.
LD50 Oral - Rat - Acute toxicity	2,260 mg/kg,
Reproductive toxicity	No data available.
Respiratory or skin sensitization	Guinea pig - Result: No skin irritation. (OECD Test Guideline 406)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No skin irritation. (OECD Test Guideline 405)
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 404)
Specific target organ toxicity - repeated exposure	No data available.

Specific target organ toxicity - single exposure	No data available.
Dioctyl Phthalate(117-81-7)	
^ - Vivo	Test Type: DNA Damage and/or repair. Test Species: Rat (male) Cell Type: Bone Marrow. Application Route: Oral. Exposure Time: 5 d. Dose: 0, 0.5, 1.7, 5 ml/kg. Result : Negative
Acute Inhalation Toxicity	Remarks: No Data Available
Aspiration Toxicity	No aspiration toxicity classification
Carcinogenicity	Mouse (Male of Female) Oral - Exposure time (104wk) Dose: 0, 500, 1500, 6000 ppm. NOAEL: 500 ppm. LOAEL: 1,500 ppm. Method: OECD Test Guideline 453. Result: Evidence of Carcinogenic Activity. Symptoms: Hepatocellular carcinoma and adenoma.
Carcinogenicity - Assessment	Suspected Human Carcinogens
Effects on fetal development	Rat - Application Route: Oral. Dose: 0 , 357, 666, 586, 1055 mg/kg Duration of Single Treatment: 21 d. General Toxicity Maternal: NOAEL: 357 mg/kg body weight. Teratogenicity: NOAEL: 1,055 mg/kg body weight. Developmental Toxicity: NOAEL: 357 mg/kg body weight. Symptoms: Maternal toxicity, reduced number of viable fetuses, Preimplantation loss. Result: Embryotoxicity effects and adverse effects on the offspring were detected. Species: Rat. Application Route: Oral. Dose: 0, 40, 200, 1000 mg/kg bw/d. Duration of Single Treatment: 10 d. General Toxicity Maternal: NOAEL: 200 mg/kg bw. Teratogenicity: NOAEL: 200 mg/kg bw. Developmental Toxicity: NOAEL: 200 mg/kg bw. Symptoms: Maternal toxicity, skeletal malformations, visceral malformations. Result: Teratogenic effects.
Germ Cell Mutagenicity - Assessment	Tests on bacterial or mammalian cell cultures did not show mutagenic effects
Germ Cell Mutagenicity - Vitro	Test Type: Chromosome aberration test n vitro. Test Species: Chinese hamster ovary (CHO) Metabolic Activation With and without metabolic activation. Result: Negative. Test Type: Chromosome aberration
LD50 Acute Dermal Toxicity - Rabbit	25,000 mg/kg
LD50 Acute Oral Toxicity - Rat	5,000 mg/kg
Repeated Dose Toxicity	Rat (male and female) Oral - 104 wks Number of Exposures: 7d/wk. Dose: 0, 100, 500, 2500, 12500 ppm. OECD Test Guideline 453. GLP: Yes. Symptoms: Liver effects and increased liver weight. Rat (male and female) NOAEL: 50. Inhalation (dust/mist/fume) 4wks. Number of Exposures: 6h/d, 5d/wk. Dose: 0, 10, 50, 1000 mg/3. OECD Test Guideline 412. GLP: Yes. Symptoms: Lung effects and increased liver weight
Reproductive Toxicity - Assessment	Presumed human reproductive toxicant
Reproductive Toxicity - Effects on Fertility	Rat (Male and Female) Multigenerational Study - Application Route: Oral. Dose: 1.5 - 10,000 ppm. General Toxicity - Parent: NOAEL: 300 ppm. General ToxicityF1: NOAEL: 300 ppm. Fertility: NOAEL: 1,000 ppm. Early Embryonic effects and adverse effects development: NOAEL: 100 ppm. Results: Embryotoxicity Effects and adverse effects on the offspring were detected. GLP: Yes. Symptoms: Reduced fertility Testicular effects.
Respiratory or Skin Sensitization	Guinea Pig - Maximization Test - Results: Did not cause sensitization on laboratory animals
Serious Eye Damage/Eye Irritation	Rabbit - Exposure time (72h) OECD Test Guideline 405 - Results: Mild Eye Irritation
Skin Corrosion/Irritation	Rabbit - Exposure time (4h) OECD Test Guideline 404 - Results: Mild Skin Irritation
STOT - Repeated Exposure	No Data Available
STOT - Single Exposure	No Data Available
Ethyl Alcohol(64-17-5)	
Additional Information	RTECS: KQ6300000 Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence
Aspiration hazard	No data available.
Carcinogenicity - Mouse - Oral	Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease. IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Dermal:	No data available
Germ cell mutagenicity	No data available.
LC50 Inhalation - Rat	20000 ppm, (10 h)

LD50 Oral - Rat	7,060 mg/kg , Remarks: Lungs, Thorax, or Respiration: Other changes.
Reproductive toxicity	No data available. Reproductive toxicity - Human - female - Oral Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation Eyes Rabbit	Result: Mild eye irritation - 24 h (OECD Test Guideline 405)
Skin corrosion/irritation Skin - Rabbit	Result: No skin irritation - 24 h (OECD Test Guideline 404)
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Ethylene glycol mono butyl ether(111-76-2)	
Aspiration toxicity	Remarks: No data available.
Carcinogenicity	Species mouse, Application Route: Inhalation, Exposure time 2 yr, Activity duration: 6 h, Frequency of Treatment: 5 days/week, NAOEL: 125 ppm Result: Limited evidence of carcinogenic effects with no relevance to humans., Carcinogenicity-Assement: Not evidence of carcinogenicity in animal studies..
Further information	Product Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.,
Germ cell mutagenicity	Genotoxicity in vitro: Test Type: Mammalian cell gene mutation assay; Test species: Chinese hamster (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 did not show mutagenic effects.
LC50 (rat) inhalation	Acute inhalation toxicity: 500 ppm, Exposure time: 4 h; Assessment: the component/mixture is moderately toxic after short term inhalation.
LC50 (rat) Oral	Acute toxicity estimate: 500 mg/kg; Method: Expert judgment.; Assessment: the component/mixture is moderately toxic after single ingestion.
LD50 (rat) dermal	Acute toxicity estimate: 1,1000 mg/kg; Method: Expert judgment; Assessment: the component/mixture is moderately toxic after single contact with skin.
Repeated dose toxicity	Species: rat NOAEL: 30, Application Route: Inhalation Exposure time: 14 wk Number of exposures: 6 h/d, 5 d/wk.
Reproductive toxicity	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 fetal development : Test Type: Embryo-fetal 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
Respiratory or skin sensitsation	Test Type: Maximization test, Species guinea pig, Result: Did not cause sensitization on laboratory animals.
Serious eye damage/ eye irritation	Species rabbit, Exposure time 24 h, Result: Irritating to eyes.
Skin corrosion/irritation	Remarks: Moderate skin irritation in susceptible persons., Species rabbit, Exposure time 24 h, Result: Mild skin irritation
STOT - repeated exposure	No data available.
STOT - single exposure	No data available.
Isobutyl Alcohol(78-83-1)	
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classified as carcinogenic by ACGIH, IARC, OSHA or NTP.
LC50 Inhalation - Rat	8000 ppm; (4 h)
LD50 Dermal - Rabbit	3400 mg/kg
LD50 Oral - Rat (Acute Toxicity)	2460 mg/kg
Mutagenicity Data:	No adverse mutagenicity effects are anticipated.
Reproductive Data:	No adverse reproductive effects are anticipated.
Respiratory / Skin Sensitization Data:	None known.
Synergistic Materials:	Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide.

Tetragenicity Data:	No adverse Tetragenicity effects are anticipated.
Isopropyl Alcohol(67-63-0)	
Aspiration hazard	Based on physico-chemical values or lack of human evidence, not classified.
Carcinogenicity	Not classified.
Effects on Development	Not classified.
Germ cell mutagenicity	Not classified No adverse effect observed.
LC50 (Rat)	46.6 mg/l; Exposure time: 8 h, Acute inhalation toxicity: Based on acute toxicity values, not classified. High vapor concentrations may cause irritation of the eyes, nose, and/or throat, changes to the liver, lung, spleen, and brain, and central nervous system depression (ataxia, dizziness, narcosis, and muscle relaxation, with respiratory arrest and death in cases of severe over exposure).
LD50 (Rabbit)	12,870 mg/kg
LD50 (Rat)	4,396 mg/kg; Acute oral toxicity: Based on acute toxicity values, not classified. Ingestion may cause gastrointestinal effects (pain, nausea, vomiting, and hemorrhage), hypothermia, cardiac effects (low blood pressure, shock and cardiac arrest), liver changes, kidney damage, and CNS effects (headache, dizziness, sleepiness, coma and death).
Reproductive toxicity	Effects on fertility / Effects on or via lactation: Not classified.
Respiratory or skin sensitization	Not classified No adverse effect observed.
Serious eye damage/eye irritation	Classified Causes serious eye irritation.
Skin corrosion/irritation	Based on skin irritation values, not classified. Liquid may cause slight skin irritation. Exposure of liquid to the underdeveloped skin of premature infants may cause severe irritation.
Target Organ Systemic Toxicant - Repeated exposure	Based on repeated exposure toxicity values, not classified.
Target Organ Systemic Toxicant - Single exposure	Routes of exposure: Ingestion, Inhalation Target Organs: Central nervous system Classified, May cause drowsiness or dizziness.
Methyl Alcohol(67-56-1)	
Additional Information	RTECS: PC1400000 Methyl alcohol may be fatal or cause blindness if swallowed. Effects due to ingestion may include:, Headache, Dizziness, Drowsiness, metabolic acidosis, Coma, Seizures. Symptoms may be delayed., Damage of the:, Liver, Kidney Central nervous system - Breathing difficulties - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence.
Aspiration hazard	No aspiration toxicity classification
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. 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. 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. Reproductive toxicity Damage to fetus not classifiable Fertility classification not possible from current data. Specific target organ toxicity - single exposure Causes damage to organs.
Germ cell mutagenicity	Ames test S. typhimurium Result: negative in vitro assay fibroblast Result: negative Mutation in mammalian somatic cells. Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Mouse - male and female Result: negative.
LC50 Inhalation - Rat	5 mg/l
LD50 Dermal - Rabbit	300 mg/kg
LD50 Oral - Rat Acute Toxicity	100 mg/kg
Reproductive toxicity	Damage to fetus not classifiable Fertility classification not possible from current data.
Respiratory or skin sensitization	Maximization Test (GPMT) - Guinea pig Does not cause skin sensitization. (OECD Test Guideline 406)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation
Specific target organ toxicity - repeated exposure	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Specific target organ toxicity - single exposure	Causes damage to organs.
Methyl Amyl Ketone(110-43-0)	
Aspiration hazard	May be harmful if swallowed and enters airways.
Carcinogenicity	No data available.

LD50 Dermal - (Rat)	>2,000 mg/kg
LD50 Inhalation - (Rat)	>16.7 mg/l (4 h)
LD-50 Oral - (Rat)	1,600 mg/kg
Mutagenicity	In vitro, No data available., In vivo, No data available.
Other adverse effects	No data available.
Repeated dose toxicity	No data available.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	Skin Sensitization:, (Mouse) - non-sensitizing.
Serious eye damage/eye irritation	(Rabbit, 24 h): slight.
Skin corrosion/irritation	(Rabbit, 24 h): moderate.
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Methyl Isobutyl Ketone(108-10-1)	
Carcinogenicity Data	Methyl Isobutyl Ketone: Possibly carcinogenic to humans. (IARC-2B)
LC50 (Rat, 4) Inhalation	8.2 - 16.4 mg/l
LD50 (Rabbit) Dermal	>1 600 mg/kg
LD50 (Rat) Oral	2 080 - 4 600 mg/kg
Mutagenicity Data	Mutagenicity tests in animals have been negative or inconclusive. See "Other Studies Relevant to Material".
Other Studies Revelant Material	According to the International Agency for Research on Cancer (IARC), methyl isobutyl ketone is possibly carcinogenic to humans. (IARC-2B) MIBK was not teratogenic, embryotoxic or fetotoxic following exposures that did not produce maternal toxicity. Rats and mice were exposed to 300, 1000 or 3000 ppm MIBK on days 6-15 of pregnancy. Exposures to 3000 ppm produced maternal and fetal toxicity, but no teratogenicity. There was no maternal toxicity, embryotoxicity or teratogenicity at 300 or 1000 ppm. Findings of fetotoxicity at 300 ppm were complicated by abnormal litter sizes and were determined not to be treatment related. (4) MIBK produced negative results in the micronucleus cryptogenic assay in mice in vivo. Most mutagenicity tests have produced negative results.
Reproductive Data	No adverse reproductive effects are anticipated.
Respiratory / Skin Sensitization Data	None known.
Synergistic Materials	In studies with mice, MIBK prolonged the loss of righting reflex induced by ethanol. In animal studies, MIBK has been shown to potentiate the hepatotoxicity of haloalkanes, such as chloroform, carbon tetrachloride and 1,2-dichlorobenzene. Combined exposure to methyl ethyl ketone and MIBK caused increased behavioral responses in baboons.
Teratogenicity Data	No adverse teratogenic effects are anticipated. See "Other Studies Relevant to Material".
n-Butyl Acetate(123-86-4)	
Aspiration hazard	No data available.
Carcinogenicity	No data available.
Inhalation	No data available.
LD-50 Dermal - (Rabbit)	> 16ml/kg
LD-50 Oral - (Rat)	14,130 mg/kg
Mutagenicity	In vitro: No data available. In vivo: No data available.
Other adverse effects:	No data available.
Repeated dose toxicity	No data available.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	Skin Sensitization:, (Guinea Pig) - non-sensitizing.
Serious eye damage/eye irritation	(Rabbit, 24 h): none
Skin corrosion/irritation	(Rabbit, 24 h): none
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	Narcotic effect.
n-Methyl-2-pyrrolidone(872-50-4)	
Aspiration Hazard	Not Applicable.

Assessment other acute effects	Assessment of STOT single: Causes temporary irritation of the respiratory tract. Irritation / corrosion Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation. Causes temporary irritation of the respiratory tract. EU-classification Skin Species: rabbit Result: Slightly irritating. Method: Draize test Literature data. The European Union (EU) has classified this substance with 'Irritating to skin' (R38). Eye Species: rabbit Result: Irritant. Method: Draize test Literature data. Sensitization Assessment of sensitization: Skin sensitizing effects were not observed in animal studies. Mouse Local Lymph Node Assay (LLNA) Species: mouse Result: Non-sensitizing. Method: OECD Guideline 429 The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Carcinogenicity	Assessment of carcinogenicity: In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed. In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans. The whole of the information assessable provides no indication of a carcinogenic effect.
Genetic toxicity	Assessment of mutagenicity: The substance was not mutagenic in bacteria. No mutagenic effect was found in various tests with mammalian cell culture and mammals.
LC50 Inhalation - Rat	> 5.1 mg/l (OECD Guideline 403) Exposure time: 4 h An aerosol was tested. Limit concentration test only (LIMIT test). No mortality was observed.
LD50 Dermal - Rat	5,000 mg/m3; Species: rat (male/female) Value: > 5,000 mg/kg (OECD Guideline 402) Literature data.
LD50 Oral - Rat	4,150 mg/kg (OECD Guideline 401) Literature data.
Repeated dose toxicity	Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation. The substance may cause damage to the testes after repeated inhalation of high doses. Experiment
Reproductive toxicity	Assessment of reproduction toxicity: As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects.
Symptoms of Exposure	Medical conditions aggravated by overexposure Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.
Tetragenicity	Assessment of teratogenicity: The substance caused malformations/developmental toxicity in laboratory animals.
Phenylethane(100-41-4)	
Aspiration toxicity	May be fatal if swallowed and enters airways.
Carcinogenicity	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 : Carcinogenicity classification not possible from current data.
Germ cell mutagenicity	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
LC50 (Mouse, Male)	10 mg/l Assessment: The component/mixture is moderately toxic after short term inhalation.
LD50 (rabbit)	15,433 mg/kg
Repeated dose toxicity	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
Reproductive toxicity	Effects on fertility : 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 F1: NOAEC: 100 ppm Symptoms: Reduced fetal weight. Reduced offspring weight gain. Method: OECD Test Guideline 415 Result: No reproductive effects. GLP: yes Effects on fetal development : 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 Reproductive toxicity - Assessment : No toxicity to reproduction Did not show teratogenic effects in animal experiments.
Respiratory or skin sensitization	Remarks: No data available

Serious eye damage/eye irritation	Species: rabbit Result: Mild eye irritation Remarks: No data available
Skin corrosion/irritation	Species: rabbit Result: Mild skin irritation
STOT - repeated exposure	Target Organs: Auditory system Assessment: 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.
STOT - single exposure	No data available.
Phosphoric Acid(7664-38-2)	
Additional Information	RTECS: TB6300000 burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, May cause cyanosis. Stomach - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence.
Aspiration hazard	No data available.
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. 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. 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.
Germ cell mutagenicity	No data available.
Inhalation:	No data available.
LD50 Dermal - Rabbit	2,740 mg/kg Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Excitement. No data available.
LD50 Oral - Rat - Acute toxicity	> 5,000 mg/kg, (OECD Test Guideline 423),
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	Eyes - Rabbit Result: Corrosive
Skin corrosion/irritation	Skin - Rabbit Result: Causes burns. - 24 h
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Pseudocumene(95-63-6)	
Additional Information	RTECS: DC3325000 prolonged or repeated exposure can cause:, narcosis, Bronchitis., Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Central nervous system
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. 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. 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.
Dermal:	No data available
Germ cell mutagenicity	in vitro assay S. typhimurium Result: negative Mutagenicity (micronucleus test) Rat - male and female - Bone marrow Result: negative
Inhalation:	No data available.
LD50 Oral - Rat - Acute toxicity	6,000 mg/kg, Rat - male.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	No data available.
Skin corrosion/irritation	No data available
Specific target organ toxicity - repeated exposure	No data available.

Specific target organ toxicity - single exposure	No data available.
Xylene(1330-20-7)	
Acute dermal toxicity	Acute toxicity estimate : 1,100 mg/kg Method: Expert judgment.
Acute inhalation toxicity	Acute toxicity estimate, 4631 ppm Exposure time, 4 h Test atmosphere: gas Method; Calculation method.
Acute toxicity Product	Acute oral toxicity : Acute toxicity estimate : 3,523 mg/kg Method: Calculation method.
Aspiration Toxicity	May be fatal if swallowed and enters airways.
Carcinogenicity	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.
Germ cell mutagenicity	Test Type: Chromosome aberration test in virto. Test Species: Chinese hamster ovary (CHO) Metabolic Activation: With and without metabolic activation. Method Mutagenicity (in vitro mammalian cytogenetic test) Result: Negative. Test Type: Sistrer chromatic exchange assay in mammalian cells.
Germ cell mutagenicity Assessment	Animal testing did not show any mutagenic effects.
LC50 (rat, male) Inhalation	6700 ppm Exposure time: 4 h Method: Directive 67/548/EEC, Annex V, B.2. GLP: No data available Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. Remarks: Acutely Toxic Category 4
LC50 (rat, male) Oral	3,523 mg/kg Method: EU Method B.1 (Acute Toxicity, Oral) Target Organs: Kidney, Bladder GLP: no
Repeated dose toxicity	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.
Reproductive toxicity	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 F1: NOAEC: > 500 ppm Early Embryonic Development: NOAEC: > 500 ppm Result: No reproductive effects. Effects on fetal 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
Respiratory or skin sensitization	Remarks: No data available
Serious eye damage/eye irritation	Species: rabbit Result: Mild eye irritation
Skin corrosion/irritation	Species: rabbit Exposure time: 24 h Result: Irritating to skin Remarks: Skin irritation, Category 2
STOT - repeated exposure	Target Organs: Liver, Kidney, Central nervous system Assessment: May cause damage to organs through prolonged or repeated exposure.
STOT - single exposure	No data available.

12. ECOLOGICAL INFORMATION

Acetone(67-64-1)	
Bioacculative potential	Parition coefficient: n-octanol/water: log Pow: -0.24
EC50 (Daphnia magna (Water flea))	7,630 mg/l (Exposure time 48 h); Test substance: Acetone
LC50 (Oncorhynchus mykiss (rainbow trout))	6,100 mg/l (Exposure time: 48 h)
Mobility in soil	No data available.
Other adverse effects	No data Available. Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances., Additional ecological information: No data available.
Persistence and degrability	Biodegrability: Remarks: No data available
Toxicity to algae	Remarks: No data available
Aliphatic Solvent(64742-47-8)	
Bioaccumulative potential	No data available.

EC50 (Daphnia Magna) Toxicity to daphnia and other aquatic invertebrates	1.4 mg/l - 48 h, - Daphnia magna (Water flea), (OECD Test Guideline 202)
LC50 (Rainbow trout) Toxicity to fish	2.9 mg/l - 96 h, Oncorhynchus mykiss (rainbow trout)
Mobility in soil	No data available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. No data available.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Cumene(98-82-8)	
Bioaccumulative potential	No data available.
EC50 - Daphnia (water flea) - Toxicity to daphnia and other aquatic invertebrates	2.14 mg/l - 48 h (OECD Test Guideline 202), Daphnia (water flea)
EC50 - Pseudokirchneriella subcapitata (green algae) - Toxicity to algae	2.60 mg/l - 72 h, Pseudokirchneriella subcapitata (green algae)
LC50 - Oncorhynchus mykiss (rainbow trout) Toxicity to fish	4.8 mg/l - 96 h, Oncorhynchus mykiss (rainbow trout)
Mobility in soil	No data available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
Persistence and degradability	Biodegradability Result: - According to the results of tests of biodegradability this product is not readily biodegradable.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Dioctyl Phthalate(117-81-7)	
Bioaccumulative Potential - Bioaccumulation	Oncorhynchus mykiss (rainbow trout) BFC: 113. Exposure time: 100 d.
Chronic Aquatic Toxicity	Very toxic to aquatic life with long lasting effects
EC50 Daphnia Magna - Toxicity to daphnia and other aquatic invertebrates	0.16 mg/l. 48 h. Immobilization
EC50 Pseudokirchneriella Subcapitata - Toxicity to Algae	0.003 mg/l. Biomass 72 h. ISO 8692.
Ecotoxicology Assessment Acute Aquatic Toxicity	Very toxic to aquatic life
LC50 Pimephales Promelas Toxicity to Fish	0.67 mg/l. 96 h. Flow through test.
M-Factor (Acute Aquatic Toxicity)	100
Mobility in Soil	No Data Available
Other Adverse Effects	No Data Available
Partition coefficient n-octanol/water	Log Pow: 7.54 - 7.66
Persistence and Degradability - Biodegradability	Readily biodegradable. OECD Test Guideline 301
Product	Regulation: 40 CFR Protection of environment: part 82 Protection of Strospheric Ozone - CAA Section 602 Class I Substances. Remarks: This product neither contains, nor was manufactured with Class I or Class II ODS as defined by the US Clear 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. Very toxic to aquatic life with long lasting effects.

Ethyl Alcohol(64-17-5)	
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Toxicity	No data available.
Ethylene glycol mono butyl ether(111-76-2)	
Bioaccumulative potential	Partition coefficient: n-octanol/water: log Pow: 0.83
EC50 (Algee)	911 mg/l End point: Biomass Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: no
EC50 (Daphnia)	1,800 mg/l(48 h; Daphnia magna (Water flea)): Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: no
LC50 (fish)	1,474 mg/l Pimephales promelas (Fathead minnow))Exposure time: 96 h Test Type: static test, Method: OECD Test Guideline 203 GLP: no
Mobility in soil	No data available
Other adverse effects	No data available
Persistence and degradability	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
Product	Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances:
Isobutyl Alcohol(78-83-1)	
Chronic	No data available.
Degradability / Persistence; Biological / A biological Degradation	Evaluation: Not readily biodegradable (by OECD criteria).
EC50 - Aquatic Plants	>100 mg/l (72 h) The product has not been tested. The statement has been derived from properties of the individual components.
EC50 - Daphnia - Acute	>100 mg/l (48 h) The product has not been tested. The statement has been derived from properties of the individual components.
LC50 - Fish - Acute	>100 mg/l (96 h) The product has not been tested. The statement has been derived from properties of the individual components.
Microorganisms	Toxicity to microorganisms: bacteria EC10 (17 h): >750 mg/l. The product has not been tested. The statement has been derived from properties of the individual components.
Isopropyl Alcohol(67-63-0)	
Bioaccumulative potential	Bioaccumulation : Bioconcentration factor (BCF): 3.16 this material is not expected to bioaccumulate.
Ecotoxicology Assessment	Acute aquatic toxicity: Based on acute aquatic toxicity values, not classified. Chronic aquatic toxicity: Not classified, based on readily biodegradability and low acute toxicity.
Mobility in soil	Distribution among environmental compartments: Stability in water initially partitioning mainly to water and air. Stability in soil Volatilization from water or soil surfaces is expected to be limited. Additional advice Environmental fate and pathways : No additional information available.
Other adverse effects Additional ecological information	No additional information available.
Persistence and degradability	Biodegradability : 86 - 94 % Rapidly degradable. (After two weeks in a ready biodegradability test)
Results of PBT and vPvB assessment	Not applicable.
Toxicity to algae	Acute toxicity to aquatic plants very low.
Toxicity to bacteria	Low toxicity to sewage microbes.
Toxicity to daphnia and other aquatic invertebrates	Acute toxicity to freshwater and marine invertebrates is very low.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	Chronic toxicity expected to be low.
Toxicity to fish	Acute toxicity to fish is very low.
Toxicity to fish (Chronic toxicity)	Chronic toxicity to fish is expected to be low.
Methyl Alcohol(67-56-1)	

Bioaccumulative potential	Bioaccumulation Cyprinus carpio (Carp) - 72 d at 20 °C - 5 mg/l Bioconcentration factor (BCF): 1.0
EC50 - Daphnia magna -	> 10,000.00 mg/l - 48 h Toxicity to daphnia and other aquatic invertebrates, Daphnia magna (Water flea)
EC50 - Scenedesmus capricornutum - Toxicity to algae	22,000.0 mg/l - 96 h, Scenedesmus capricornutum (fresh water algae)
IC50 Activated sludge - Toxicity to bacteria	>1,000 mg/l, Exposure 3 h, Test type Static, Method OECD Test Guideline 209.
LC50 - Lepomis macrochirus - Toxicity to Fish	15,400.0 mg/l - 96 h, Lepomis macrochirus (Bluegill)
Mobility in soil	Will not adsorb on soil.
Other adverse effects	No data available.
Persistence and degradability	Biodegradability aerobic - Exposure time 5 d Result: 72 % - rapidly biodegradable Biochemical Oxygen Demand (BOD) 600 - 1,120 mg/g Chemical Oxygen Demand (COD) 1,420 mg/g Theoretical oxygen demand 1,500 mg/g
Methyl Amyl Ketone(110-43-0)	
Aquatic invertebrates	No data available.
Bioaccumulative potential	No data available.
Chronic Toxicity (Fish)	No data available.
ErC50 (Selenastrum capricornutum)	98.2 mg/l, 72 h
LC50 (Fathead Minnow) Acute toxicity	131 mg/l , (96 h)
Mobility in soil	No data available.
Persistence and degradability	69 % (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological Oxygen Demand BOD-5: 1,770 mg/g BOD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOD/COD ratio No data available.
Results of PBT and vPvB assessment	No data available.
Methyl Isobutyl Ketone(108-10-1)	
Deactivating Chemicals: None required.	None required.
Disposal of Packaging	Empty containers retain product residue (liquid and/or vapour) and can be dangerous. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not dispose of package until thoroughly washed out.
EC50 (Daphnia Magna)	>200 mg/l (48 h)
Ecotoxicity	Low acute toxicity to aquatic organisms.
Environmental Fate	Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers. Methyl Isobutyl Ketone: This product is biodegradable. This product does not bioaccumulate in aquatic or terrestrial food chains.
LC50 (Fathead Minnow)	>179 mg/l (96 h)
Safe Handling of Residues	See "Waste Disposal Methods"
Waste Disposal Methods	. Reevaluation of the product may be required by the user at the time of disposal since the product uses, transformations, mixtures and processes may influence waste classification. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.
n-Butyl Acetate(123-86-4)	
Bioaccumulative potential	No data available.
Chronic Toxicity	Fish: No data available. Aquatic invertebrates: No data available. Toxicity to Aquatic Plants: No data available.
LC-50 (Fathead Minnow) Acute Toxicity	18 mg/l, (96 h)
LC-50 (Water Flea) Aquatic invertebrates	44 mg/l , (48 h)
Mobility in soil	Known or predicted distribution to environmental compartments: No data available.
Other adverse effects	No data available.
Persistence and degradability	83 % (28 d), Biological Oxygen Demand:BOD-5: 730 mg/g, Chemical Oxygen Demand:1,010 mg/g, BOD/COD ratio:72 %.

Results of PBT and vPvB assessment	No data available.
n-Methyl-2-pyrrolidone(872-50-4)	
Additional information	Sum parameter Chemical oxygen demand (COD): (DIN 38409 Part 41) approx. 1,600 mg/g Biochemical oxygen demand (BOD) Incubation period 5 d: < 2 mg/g Absorbable organically-bound halogen (AOX): This product contains no organically-bound halogen.
Bioaccumulative potential	Assessment bioaccumulation potential Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.
EC50 (Algae)	> 500 mg/l, (72 h), Scenedesmus subspicatus (DIN 38412 Part 9) The details of the toxic effect relate to the nominal concentration.
EC50 (Daphnia)	> 1,000 mg/l, (24 h), Daphnia magna (DIN 38412 Part 11, static) The details of the toxic effect relate to the nominal concentration.
LD50 (fish)	> 500 mg/l, Salmo gairdneri, syn. O. mykiss (static) The details of the toxic effect relate to the nominal concentration.
Microorganisms/Effect on activated sludge	Toxicity to microorganisms DIN EN ISO 8192 aquatic activated sludge, industrial/EC50 (0.5 h): > 600 mg/l The details of the toxic effect relate to the nominal concentration.
Mobility in soil	Assessment transport between environmental compartments The substance will rapidly evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.
Persistence and degradability	Assessment biodegradation and elimination (H2O) Readily biodegradable (according to OECD criteria). Elimination information 73 % BOD of the ThOD (28 d) (OECD 301C; ISO 9408; 92/69/EEC, C.4-F) (aerobic, Inoculum conforming to MITI requirements (OECD 301C)) Readily biodegradable (according to OECD criteria). Assessment of stability in water In contact with water the substance will hydrolyze slowly.
Phenylethane(100-41-4)	
Bioaccumulative potential	Partition coefficient: noctanol/water : log Pow: 2.92
EC50 (Daphnia magna (Water flea))	1.8 mg/l Exposure time: 48 h Test Type: static test
EC50 (Pseudokirchneriella subcapitata)	5.4 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Static GLP: yes
LC50 (Oncorhynchus mykiss (rainbow trout))	4.2 mg/l Exposure time: 96 h Test Type: semi-static test
Mobility in soil	No data available.
Other adverse effects	Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Persistence and degradability	Biodegradability : Inoculum: activated sludge Concentration: 22 mg/l Result: Readily biodegradable. Biodegradation: 70 % Exposure time: 28 d GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	(Daphnia): 3.6 mg/l Toxicity to bacteria : GLP: Remarks: No data available Ecotoxicology Assessment Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.
Phosphoric Acid(7664-38-2)	
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	May be harmful to aquatic organisms due to the shift of the pH.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Toxicity	No data available.
Pseudocumene(95-63-6)	
Bioaccumulative potential	No data available.
EC50 - Daphnia magna (Water flea) - Toxicity to daphnia and other aquatic invertebrates static test	3.6 mg/l - 48 h (OECD Test Guideline 202), Daphnia magna (Water flea)
LC50 - Pimephales promelas (fathead minnow) - Toxicity to fish	7.72 mg/l - 96.0 h, Pimephales promelas (fathead minnow)
Mobility in soil	No data available.

Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Xylene(1330-20-7)	
Bioaccumulative potential	Partition coefficient: noctanol/water : log Pow: 2.77 - 3.15
EC50 (Pseudokirchneriella subcapitata)	4.36 mg/l End point: Growth rate Exposure time: 73 h Test Type: static test Analytical monitoring: yes
IC50 (Daphnia magna (Water flea))	1 mg/l Exposure time: 24 h Test Type: static test substance: Information given is based on data obtained from similar substances. Method: OECD Test Guideline 202 GLP
LC50 (Oncorhynchus mykiss (rainbow trout))	2.6 mg/l Exposure time: 96 h Test substance: Information given is based on data obtained from similar substances. Method: OECD Test Guideline 203 GLP: No data available
Mobility in soil	No data available.
Persistence and degradability	Biodegradability : Inoculum: activated sludge Result: Readily biodegradable. Biodegradation: 72 % Exposure time: 20 d

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

GENERAL INFORMATION : No data available.
DISPOSAL METHOD: Dispose of waste and residues in accordance with Local, State, and Federal Regulations. Mix with compatible chemical which is less flammable and incenerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind or weld or near this container.

14. TRANSPORT INFORMATION

***CHECK WITH YOUR CARRIER FOR ADDITIONAL RESTRICTIONS THAT MAY APPLY.**

USDOT GROUND
DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME (DOT) : Paint
HAZARDS CLASS : 3
UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 128

IATA (AIR)
DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION)
PROPER SHIPPING NAME : Paint
HAZARDS CLASS : 3
UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 128

IMDG (OCEAN)
PROPER SHIPPING NAME : Paint
HAZARDS CLASS : 3
UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 128

MARINE POLLUTANT : No
SPECIAL PRECAUTIONS : P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P235 Keep cool.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS
All ingredients in Section #3 are TSCA (Toxic Substance Control Act) listed.

OSHA HAZARDS : Flammable liquid, Moderate skin irritant, Moderate eye irritant, Carcinogen.

EPCRA - Emergency
CERCLA REPORTABLE QUANTITY

This product contains:	Chemical CAS#
Ethyl Alcohol	64-17-5
n-Butyl Acetate	123-86-4
Ethylene glycol mono butyl ether	111-76-2
Xylene	1330-20-7
Isobutyl Alcohol	78-83-1
Phenylethane	100-41-4

SARA 304 Extremely Hazardous Substances Reportable Quantity : This material does not contain any components with a section 304 EHS RQ.
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)
SARA 311/312 Hazards : Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313 :

This product contains:	Chemical CAS#
Ethyl Alcohol	64-17-5
n-Butyl Acetate	123-86-4
Aliphatic Solvent	64742-47-8
Acetone	67-64-1
Isopropyl Alcohol	67-63-0
Pseudocumene	95-63-6
Methyl Isobutyl Ketone	108-10-1
Methyl Amyl Ketone	110-43-0
Methyl Alcohol	67-56-1
Dioctyl Phthalate	117-81-7
n-Methyl-2-pyrrolidone	872-50-4
Phenylethane	100-41-4

CLEAN AIR ACT :

This product contains:	Chemical CAS#
Methyl Isobutyl Ketone	108-10-1
Methyl Alcohol	67-56-1
Cumene	98-82-8
Phenylethane	100-41-4

INTERNATIONAL REGULATIONS

CLASSIFICATION ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP) :

Flam. Liq. Cat 2;	H226
Acute Tox. Cat 4;	H302
Aspir. Haz. Cat. 1;	H304
Acute Tox. Cat. 4;	H312
Skin Irrit. Cat. 2;	H315
Eye Irrit. Cat. 2A;	H319
Acute Toc. Cat. 4;	H332
STOT SE Resp. Cat. 3;	H335
STOT SE, Inhalation, Cat. 3;	H336
Carc. 2;	H351
STOT RE Cat.2;	H373
Aquatic Acute 2;	H401
Aquatic Tox. 3; Cat. 3;	H402

Aquatic Chronic 3; H412

NATIONAL REGULATIONS

This product contains:	Chemical CAS#
#Methyl Isobutyl Ketone	108-10-1
#Phenylethane	100-41-4

# Indicates a chemical listed by IARC as a possible carcinogen.

STATE REGULATIONS
CALIFORNIA PROPOSITION 65

This product contains:	Chemical CAS#
*Aliphatic Solvent	64742-47-8
#Methyl Isobutyl Ketone	108-10-1
+Methyl Alcohol	67-56-1
*Dioctyl Phthalate	117-81-7
+n-Methyl-2-pyrrolidone	872-50-4
*Cumene	98-82-8
*Phenylethane	100-41-4

*****This product contains (a) chemical (s) known to the State of California to cause cancer.
#This product contains (a) chemical (s) known to the State of California to be carcinogenic.
+This product contains (a) chemical (s) known to the State of California to cause birth defects or other reproductive harm.

Massachusetts Right to Know

This product contains	Chemical CAS#
n-Butyl Acetate	123-86-4
Aliphatic Solvent	64742-47-8
Acetone	67-64-1
Pseudocumene	95-63-6
Methyl Amyl Ketone	110-43-0
Methyl Alcohol	67-56-1
Dioctyl Phthalate	117-81-7
n-Methyl-2-pyrrolidone	872-50-4
Ethylene glycol mono butyl ether	111-76-2
Xylene	1330-20-7
Cumene	98-82-8
Isobutyl Alcohol	78-83-1
Phenylethane	100-41-4
Phosphoric Acid	7664-38-2

Pennsylvania Right to Know

This product contains	Chemical CAS#
Ethyl Alcohol	64-17-5
n-Butyl Acetate	123-86-4
Aliphatic Solvent	64742-47-8
Acetone	67-64-1
Pseudocumene	95-63-6
Methyl Amyl Ketone	110-43-0

Methyl Alcohol	67-56-1
Dioctyl Phthalate	117-81-7
n-Methyl-2-pyrrolidone	872-50-4
Ethylene glycol mono butyl ether	111-76-2
Xylene	1330-20-7
Cumene	98-82-8
Isobutyl Alcohol	78-83-1
Phenylethane	100-41-4
Phosphoric Acid	7664-38-2
Water	7732-18-5

New Jersey Right to Know

This product contains	**Chemical CAS#**
Ethyl Alcohol	64-17-5
n-Butyl Acetate	123-86-4
Aliphatic Solvent	64742-47-8
Acetone	67-64-1
Pseudocumene	95-63-6
Methyl Amyl Ketone	110-43-0
Methyl Alcohol	67-56-1
Dioctyl Phthalate	117-81-7
n-Methyl-2-pyrrolidone	872-50-4
Ethylene glycol mono butyl ether	111-76-2
Xylene	1330-20-7
Cumene	98-82-8
Isobutyl Alcohol	78-83-1
Phenylethane	100-41-4
Phosphoric Acid	7664-38-2
Water	7732-18-5

16. OTHER INFORMATION

Other Product Information

% Volatile by Volume: 93.88
% Solids by volume: 6.12
% Exempt by Volume: 7.57

% Volatile by Weight: 91.73
% Solids by Weight: 8.27
% Exempt by Weight: 7.16

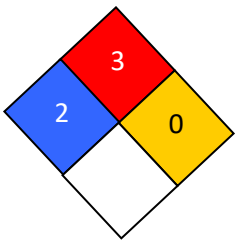
VOC CONTENT:

Excluding Exempt VOC: 765
Including Exempt VOC: 707

HMIS RATING

Health :	2*
Flammability :	3
Reactivity :	0
Personal Protection :	H

NFPA CODES



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