SAFETY DATA SHEET



DATE ISSUED : 9/9 SDS REF. No : A--

: 9/9/2016 A-4A00 SERIES

A-4A00 SERIES MODIFIED ACRYLIC AEROSOL

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: A-4A00 SERIES MODIFIED ACRYLIC AEROSOL

PRODUCT CODE:A-4A00 SERIES MODIFIED ACRYLIC AEROSOL**PRODUCT USE:**Industrial Aerosol Touch Up Paint

MANUFACTURER Cardinal Industrial Finishes 1329 Potrero Ave 24 HR. EMERGENCY TELEPHONE NUMBER CHEMTREC (US Transportation): (800)424-9300 CHEMTREC (International : 1(202)483-7616 Transportation) WEB: WWW.CARDINALPAINT.COM

S. El Monte, CA, 626 444-9274

2. HAZARDS IDENTIFICATION

PICTOGRAMS



SIGNAL WORD : DANGER

HAZARD STATEMENTS :

H223 Flammable aerosol. H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

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
Propane Blend	20% - 25%	74-98-6
Acetone	15% - 20%	67-64-1

Methyl Ethyl Ketone	15% - 20%	78-93-3
Acetic acid, methyl ester methyl ,acetate	10% - 15%	79-20-9
Dipropylene Glycol Methyl Ether Acetate	1% - 5%	88917-22-0
n-Butyl Acetate	1% - 5%	123-86-4

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

Acetic acid, methyl ester methyl ,acetate	(79-20-9)	
USA ACGIH	ACGIH (STEL)	250 ppm
USA ACGIH	ACGIH TWA	200 ppm
USA NIOSH	NIOSH (REL) TWA	200 ppm, 610 mg/m3
USA NIOSH	NIOSH (STEL) TWA	250 ppm, 760 mg/m3
USA OSHA	OSHA (STEL) Table Z-1	250 ppm, 760 mg/m3
USA OSHA	OSHA (TWA) Table Z-1	200 ppm, 610 mg/m3
Acetone(67-64-1)		
USA ACGIH	ACGIH STEL TLV	750 ppm
USA ACGIH	ACGIH TWA TLV	500 ppm
USA NIOSH		
USA NIOSH	NIOSH STEL (Table Z-1) NIOSH TWA	1,000 ppm, 2,400 mg/m3
USA OSHA	OSHA TWA (Table Z-1)	250 ppm, 590 mg/m3 1,000 ppm, 2,400 mg/m3
	OSHA TWA (Table 2-1)	1,000 ppm, 2,400 mg/m3
Benzene(71-43-2)		2.5
USA ACGIH	ACGIH STEL	2.5 ppm
USA ACGIH	ACGIH TWA	0.5 ppm
USA OSHA	OSHA CARC PEL	1 ppm
USA OSHA	OSHA CARC STEL	5 ppm
USA OSHA	OSHA CIEL (Table Z-1-A)	5 ppm
USA OSHA	OSHA STEL	5 ppm
USA OSHA	OSHA TWA (Table Z-1-A)	1 ppm
Carbon Black(1333-86-4)	1	
USA ACGIH	ACGIH TLV (mg/m3)	3.0 mg/m3
USA OSHA	OSHA PEL (mg/m3)	3.5 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
Diethylene glycol n-butyl ether(112-34-5	5)	
USA ACGIH	ACGIH TLV (TWA)	10 ppm
Dipropylene Glycol Methyl Ether Acetate(88917-22-0)	
USA OSHA	OSHA STEL (ppm, mg/m3)	150 ppm, 1,164 mg/m3
USA OSHA	OSHA TWA (ppm, mg/m3)	100 ppm, 776 mg/m3
Ethylene glycol mono butyl ether(111-76		
USA ACGIH	ÁCGIH 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
Formaldehyde(50-00-0)		
USA ACGIH	ACGIH (TLV)	0.3 ppm
USA OSHA	OSHA (PEL) STEL	2 ppm
USA OSHA	OSHA (PEL) STEL	2 ppm STEL 15 min
USA OSHA	OSHA (PEL) TWA	0.75 ppm
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 Ethyl Ketone(78-93-3)		pp, ioog, iio
USA ACGIH	ACGIH STEL (ppm)	300 ppm
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA OSHA	OSHA PEL (STEL) (ppm)	100 ppm
USA OSHA	OSHA PEL TWA (mg/m3)	410 mg/m3
Methyl Ethyl Ketoxime(96-29-7)		
	Dago 2 of 21	

USA WEEL	(WEEL) TWA	10 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	
P.M. Acetate(108-65-6)			
USA AIHA	AIAH (WEEL) TWA	50 ppm	
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	
Propane Blend(74-98-6)			
ACGIH	ACGIH	N/E	
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm	
USA OSHA	OSHA PEL (TWA) mg/m3	1800 mg/m3	
Toluene(108-88-3)			
USA ACGIH	ACGIH TWA	20 ppm	
USA NIOSH	NIOSH REL (ST)	150 ppm, 560 mg/m3	
USA NIOSH	NIOSH REL TWA	100 ppm, 375 mg/m3	
USA OSHA	OSHA STEL (PO)	150 ppm, 560 mg/m3	
USA OSHA	OSHA TWA (PO)	100 ppm, 375 ppm	
USA OSHA	OSHA TWA (Table Z-2)	200 ppm	

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	:	-44.0 deg F TO 408.0 deg F
Flash point	:	-154.00
Lower explosion limit	:	1.21
Upper explosion limit	:	16.0
Vapor pressure	:	185 mm Hg
Vapor density	:	Heavier than air
Relative density	:	No data available.
Density	:	6.8093
Solubility	:	No data available.
Partion coefficient: n- octanol/water	:	No data available.
Autoignition temperature	:	No data available.

10. STABILITY AND REACTIVITY

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

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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

Acetic acid methyl ester	methyl ,acetate(79-20-9)
Additional Information	Repeated dose toxicity Rat - male and female - Inhalation - NOAEL : 1,057 mg/m3 - OECD Test Guideline 412 RTECS: AI9100000 narcosis, This product is metabolized into formic acid. Humans and other primates metabolize formic acid more slowly than do rodents. Formic acid can build up in the body producing toxic effects possibly leading to death; therefore, data from studies in rodents may have limited relevance for human risk assessment.
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 NTP. OSHA: No component of 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Germ cell mutagenicity	Ames test S. typhimurium Result- negative OECD Test Guideline 474 Rat - male and female Result- negative
LC50 Inhalation - Rabbit - male and female	49.2 - 98.4 - 4 h, Inhalation - Rabbit - Male and female
LD50 - Oral - Rat -	6,482 mg/kg, Oral - Rat - male
male, Acute toxicity	
LD50 Dermal - Rabbit	>5,000 mg/kg - Dermal - Rabbit
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	Irritation Eyes - Rabbit Result: Irritating to eyes. (OECD Test Guideline 405)
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness Central nervous system
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 nercotic 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 Iymphorma, 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	Animal testing did not show any mutagenic effects.
Assessment 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 foetal 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; Teragenicity: NOAEC: 2,200 ppm; Embryo-foetal 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 sensitisation	Test type: Maximization test, Species: guinea pig, Assessment: Does not cause skin sensitisation. Result: Did not cause sensitisation 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 (vapour); Assessment: May cause drowsiness or dizziness.
STOT- repeated	No data available.
exposure	
Benzene(71-43-2)	May be fatal if evallowed and ontone airways. Substances known to enuce human periodication
Aspiration toxicity	May be fatal if swallowed and enters airways. Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.
Carcinogenicity	Species: rat Sex: female Dose: 0, 25, 50, 250 mg/kg Exposure time: 103 wks Number of exposures: daily, 5 days/week Test substance: yes Remarks: zymbal gland carcinomas, squamous cell papillomas Species: rat Sex: male Dose: 0, 50, 100, 200 mg/kg Exposure time: 103 wks Number of exposures: daily, 5 days/week Test substance: yes Remarks: zymbal gland carcinomas, squamous cell papillomas Species: mouse Sex: male and female Dose: 25, 50, 100 mg/kg Exposure time: 103 wks Number of exposures of exposures: daily, 5 days/week Test substance: yes Remarks: zymbal gland carcinomas, squamous cell papillomas Species: mouse Sex: male and female Dose: 25, 50, 100 mg/kg Exposure time: 103 wks Number of exposures: daily, 5 days/week Test substance: yes Remarks: Clear evidence of multiple organ carcinogenicity.
CMR effects	Carcinogenicity: Human carcinogen. Mutagenicity: In vivo tests showed mutagenic effects Teratogenicity: Did not show teratogenic effects in animal experiments. Reproductive toxicity: Animal testing did not show any effects on fertility.
Eye irritation	May cause irreversible eye damage.
Further information	Chronic Health Hazard. Solvents may degrease the skin.
LC50 Dermal	44.5 mg/l Exposure time: 4 h Species: rat Sex: Not Specified Test atmosphere: vapor
LD50	> 8,260 mg/kg Species: rabbit
LD50 Oral Repeated dose toxicity	> 2,000 mg/kg Species: rat Sex: female Species: rat, female Sex: female. Application Route: oral gavage Dose: 0, 25, 50, 100 mg/kg Exposure time: 103 wk Number of exposures: 5 d/wk NOEL: < 25 mg/kg Lowest observable effect level: 25 mg/kg Species: rat, male Sex: male Application Route: oral gavage Dose: 0, 50, 100, 200 mg/kg Exposure time: 103 wk Number of exposures: 5 d/wk NOEL: < 50 mg/kg Lowest observable effect level: 50 mg/kg Species: mouse Application Route: oral gavage Dose: 0, 25, 50,100 mg/kg Exposure time: 103 wk NOEL: < 25 mg/kg
Sensitization	Did not cause sensitization on laboratory animals.
Skin irritation	May cause skin irritation in susceptible persons.
Carbon Black(1333-86-4	
ACGIH	ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.
Carcinogenicity Classification	GHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).
Human Epidemiology	Results of epidemiological studies of carbon black production workers suggest that cumulative exposure to carbon black may result in small decrements in lung function, as measured by FEV1. A recent U.S. respiratory morbidity study suggested a 27 mL decline in FEV1 from a 1 mg/m3 (inhalable fraction) exposure over a 40-year period. An older European investigation suggested an exposure to 1 mg/m3 (inhalable fraction) of carbon black over a 40-year working-lifetime will result in a 48 mL decline in FEV1. In contrast, normal age related decline over a similar period of time would be approximately 1200 ml. The relationship between symptoms and exposure to carbon black is less clear. In the U.S. study, 9% of the highest exposure group (in contrast to 5% of the unexposed group) reported symptoms consistent with chronic bronchitis. In the European study, methodological limitations in the administration of the questionnaire limit the
	drawing of definitive conclusions about symptoms.

Human Epidemiology - cont	Since this IARC evaluation of carbon black, Sorahan and Harrington 16) re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with
CONC	carbon black exposure in two of the five plants. The same exposure hypothesis was applied by
	Morfeld and McCunney 17-18) to the German cohort; in contrast, they found no association
	between carbon black exposure and lung cancer risk and, thus, no support for the alternative
	exposure hypothesis used by Sorahan and Harrington 16).
Human Epidemiology -	Morfeld and McCunney 19) applied a Bayesian approach to unravel the role of uncontrolled
cont.	confounders and identified smoking and prior exposure to occupational carcinogens received
	before being hired in the carbon black industry as main causes of the observed lung cancer
	excess risk. Overall, as a result of these detailed investigations, no causative link between
	carbon black exposure and cancer risk in humans has been demonstrated. This view is
	consistent with the IARC evaluation in 2006. Several epidemiological and clinical studies of workers in the carbon black production industries show no evidence of clinically significant
	adverse health effects due to occupational exposure to carbon black. No dose response
	relationship was observed in workers exposed to carbon black.
Human Epidemiology -	This study, however, indicated a link between carbon black and small opacities on chest films,
cont.	with negligible effects on lung function. A study on carbon black production workers in the UK
	10) found an increased risk of lung cancer in two of the five plants studied; however, the
	increase was not related to the dose of carbon black. Thus, the authors did not consider the
	increased risk in lung cancer to be due to carbon black exposure. A German study of carbon
	black workers at one plant 11-14) found a similar increase in lung cancer risk but, like the 2001 UK study 10), found no association with carbon black exposure. In contrast, a large US study
	15) of 18 plants showed a reduction in lung cancer risk in carbon black production workers.
	Based upon these studies, the February 2006 Working Group at IARC concluded that the human
	evidence for carcinogenicity was inadequate 1) .I
IARC	IARC In 1995 IARC concluded, "There is inadequate evidence in humans for the carcinogenicity
	of carbon black." Based on rat inhalation studies IARC concluded that there is, "sufficient
	evidence in experimental animals for the carcinogenicity of carbon black," IARC's overall
	evaluation was that, "Carbon black is possibly carcinogenic to humans (Group 2B)". This conclusion was based on IARC's guidelines, which require such a classification if one species
	exhibits carcinogenicity in two or more studies. IARC performed another review in 2006, and
	again classified carbon black as possibly carcinogenic to humans (Group 2B). In its 1987 review
	IARC concluded, "There is sufficient evidence in experimental animals for the carcinogenicity of
	carbon black extracts." Carbon black extracts are classified as, possibly carcinogenic to humans
	(Group 2B).
LD50 (Rat)	>8000 mg/kg
Mutagenic Effects and	In an experimental investigation, mutational changes in the hprt gene were reported in alveolar
Germ Cell Mutagenicity	epithelial cells in the rat following inhalation exposure to carbon black. This observation is believed to be rat specific and a consequence of "lung overload" which led to chronic
	inflammation and release of genotoxic oxygen species. This mechanism is considered to be a
	secondary genotoxic effect and thus, carbon black itself would not be considered to be
	mutagenic. Carbon black is not suitable to be tested in bacterial (Ames test) and other in vitro
	systems because of its insolubility in aqueous solutions. When tested, however, results for
	carbon black showed no mutagenic effects. Organic solvent extracts of carbon black can,
	however, contain traces of polycyclic aromatic hydrocarbons (PAHs). A study to examine the
	bioavailability of these PAHs showed that PAHs are very tightly bound to carbon black and not
NIOSH	bioavailable. NIOSH The U.S. National Institute of Occupational Safety and Health (NIOSH) 1978 criteria
	document on carbon black recommends that only carbon blacks with PAH contaminant levels
	greater than 0.1% require the measurement of PAHs in air. As some PAHs are possible human
	carcinogens, NIOSH recommends an exposure limit of 0.1 mg/m3 for PAHs in air, measured as
	the cyclohexane-extractable fraction.
NTP	NTP Carbon black is not designated a carcinogen by the U.S. National Toxicology Program (NTP),
Described in the second s	the U.S. Occupational Safety and Health Administration (OSHA) or the European Union (EU).
Reproductive and	No experimental studies on effects of carbon black on fertility and reproduction have been
Teratogenic Effects	located. However, based on toxicokinetic data, carbon black is deposited in the lungs and based on its specific physicochemical properties (insolubility, low absorption potential), it is not likely to
	distribute in the body to reach reproductive organs, embryo and/or foetus under in vivo
	conditions. Therefore, no adverse effects of carbon black to fertility/reproduction or to foetal
	development are expected. No effects have been reported in long-term animal studies.
Sensitization	No animal data is available. No cases in humans have been reported.
STOT- repeated	Therefore, no STOT, Repeated exposure classification is made.
exposure	
STOT- single exposure	Inhalation studies with the rat showed lung effects (see Section 11.2 and 11.3), these effects are believed to be specific to
	are believed to be the effects of "lung overload" 1 and these effects are believed to be specific to the species. In addition, the European CLP Regulation states that no classification is necessary if
	the mechanism is not relevant to humans. 4) Also, the CLP Guidance on classification and
	labeling states that the "lung overload" mechanism is not relevant to humans. 4) Therefore, no
	STOT, Repeated Exposure classification is made
Cumene(98-82-8)	

Aspiration hazard No data available. Carcinogenicity Carcinogenicity IARC: 28 - Group 28: 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. Oerm cell mutagenicity In-Virto assay, 5: typhirumrium, Result: negative Inhalation: No data available. DSD Oral - Rat - Acute 2; Zoo mg/kg, Zoo mg/kg, Exercised Unive to assay, 5: typhirumrium, Result: negative Inhalation: DSD Oral - Rat - Acute 2; Zoo mg/kg, Zoo mg/kg, Exercised Unive to assay, 5: typhirumrium, Result: no skin irritation. (OECD Test Guideline 405) Senatuzation Senatuzation Eyes - Rabbit Result: No skin irritation. (OECD Test Guideline 404) Corrosion/irritation Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 404) Senatuzation No data available. Exposure Specific target organ No data available. To assay, 5: KIS100000 To the best of our knowledge, the chemical, physical, and toxicity - repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg RTECS: KIS100000 To the best of our knowledge, the chemical, physical, and toxicity - repeated dose toxicity - Rat - Rabbit	Additional Information	DIECE CORFIEND
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Germ cell mutagenicity In-vitro assay, St. typhimurum, Result: negative Inhalation: No data available. LD50 Oral - Rat - Acute 2,260 mg/kg, Kaster Strate Service Strate - Stratee - Strate - Strate - Strate - Stratee - Stratee - Strate - Strate - Stratee - Strate - Stratee - Strate - Stratee - S	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 levels greater than or equal to 0.1% is identified as a Nown 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.
Inhalation: No data available. LDSD Oral - Rac - Acute (Loss) Oral - Rac - Acute (Loss) Oral - Rac - Acute (Loss) 2,660 mg/kg, Guinea pig - Result: No skin irritation. (OECD Test Guideline 406) Resprinterive toxicity No data available. Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 405) Serious eyee damage/eye irritation Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 404) Specific target organ toxicity - respected exposure No data available. Specific target organ toxicity - respected No data available. Additional Information Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg RECS: N3900000 To the best of our knowledge, the chemical, physical, and toxicity - respected Additional Information Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg RECS: N3900000 To the best of our knowledge, the chemical, physical, and toxicity - single Carcinogenicity 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 NACG. ACGHI: NO component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGHI. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGHI. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcino		
LD50 Oral - Rat - Acute 2,260 mg/kg, toxicity No data available. Reproductive toxicity No data available. Serious eye Eyes - Rabbit Result: No skin irritation. (OECD Test Guideline 405) Samstization Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 404) Corrosion/irritation Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 404) Specific target organ No data available. toxicity - repeated No data available. exposure Dethviene glycol n-buty ether(112-34-5) Additional Information Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg RTECS: K9100000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidence Additional Information Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg RTECS: K9100000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidence Additional Information Repeated dose toxicity - Rat - male and female - oral - No observed adverse effect level - 250 mg/kg RTECS: K010000 To 1.9 % is dentified as a known or anticipated as Information to 0.1% is identified as a known or anticipated as toxicological properties have not been thoroughly investiga		
Respiratory or skin Guinea pig - Result: No skin irritation. (OECD Test Guideline 406) Serious eye Eyes - Rabbit Result: No skin irritation. (OECD Test Guideline 405) Samage/eye irritation Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 404) Specific target organ No data available. toxicity - repeated No data available. exposure No data available. Diethylene glycol n-buty ther(112-34-5) Additional Information Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg RTECS: K39100000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - I-regularities - Based on Human Evidence Additional Information Repeated dose as probable, possible or confirmed human carcinogen by IACC. ACGH: No component of this product present at levels greater than or equal to 0.1% is identified as a chown or anticipated acarcinogen 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. Inhalation The LCSD has no be determined. LDS Oral - Rat - male 3,305 mg/kg Repeated Dose Toxicity I animals, effects have been reported on the following organs: Blood. kidney, Liver Repeated Dose Toxicity I animals, effects have been reported on the following org	LD50 Oral - Rat - Acute toxicity	2,260 mg/kg,
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toxicity - repeated exposure Specific target organ toxicity - single exposure Diethylene glycol n-butyl ether(112-34-5) Additional Information Additional Information Nepeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 250 mg/kg RTECS: KJ9100000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. 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 probable, possible or confirmed human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a not be determined. LD Dermal - Rabbit 2.764 mg/m3 LD50 Oral - Nouse- as a carcinogen or potential carcinogen by ACGIH. NTP: No component of 0.1% is identified as a carcinogen or potential carcinogen by OSHA. The LC50 has not be determined. LD Dermal - Rabbit 2.764 mg/m3 LD50 Oral - Rat - male 3.305 mg/kg Repeated Dose Toxicity Repeated Repeated Dose Toxicity Repeated Repeated Dose Toxicity Repeated Repeated Dose Toxicity Repeated Repeated Dose Repeater Rep	corrosion/irritation	
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	Carcinogenicity	product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
	LC50 Inhalation	No Data available.

LD50 Dermal	No Data available.
LD50 Oral Other information on	No Data available. No Data available.
acute toxicity	
Reproductive toxicity Respiratory or skin sensitisation	No Data available No Data available.
Serious eye	No Data available.
damage/eye irritation	
Skin corrosion/irritation	No Data available.
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation.
Teratogenicity	No Data available.
Ethylene glycol mono bu	
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 moderatley toxic after short term inhalation.
LC50 (rat) Oral	Acute toxicity estimate: 500 mg/kg; Method: Expert judgement.; Assessment: the component/mixture is moderatley toxic after single ingestion.
LD50 (rat) dermal	Acute toxicity estimate: 1,1000 mg/kg; Method: Expert judgement; Assessment: the component/mixture is moderatley 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 foetal development : Test Type: Embryo-foetal development Species: rat Application Route: Inhalation Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day Developmental Toxicity: Lowest observed adverse effect level: 100 ppm Result: Developmental toxicity occurred at maternal toxicity dose levels Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments
Respiratory or skin sensitsation	Test Type: Maximization test, Species guinea pig, Result: Did not cause sensitisation on laboratory animals.
Serious eye damage/ eye irritation	Species rabbit, Exposure time 24 h, Result: Irritating to eyes.
Skin	Remarks: Moderate skin irritation in susceptible persons., Species rabbit, Exposure time 24 h, Result: Mild skin irritation
corrosion/irritation STOT - repeated exposure	No data available.
STOT - single exposure	No data available.
Formaldehyde(50-00-0)	
Genotoxicity	Formaldehyde was found to be weakly mutagenic in a number of in vitro genotoxicity tests and positive in certain in vivo screening tests for mutagenicity. Formaldehyde did not cause birth defects in rats inhaling concentrations up to 10 ppm. However, a study using higher levels did show a slight but statistically significant reduction in male fetal body weight.
LD50 Dermal - Rabbit	270 mg/kg
LD50 Inhalation - Rat LD50 Oral - Rat - Acute	0.31-0.59 mg/l (4 h) (Dust/ Mist) 100 mg/kg, Rat
toxicity Other Information	Lifetime inhalation of formaldehyde vapor at concentrations above 5 ppm for 6 hours per day, caused nasal tumors in laboratory animals. The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 (known) human carcinogen based on epidemiological evidence linking formaldehyde exposure to the occurrence of nasopharyngeal cancer, a rare type of cancer. IARC also found limited evidence of cancer of the nasal cavity and Page 9 of 21

	paranasal sinuses and insufficient evidence for an association between formaldehyde and leukemia. Inhalation caused liver and kidney damage in laboratory animal tests.
Sensitization	Formaldehyde has been reported to cause pulmonary hypersensitivity in some individuals who were exposed to conceratrations know to cause irritation, however, no pulmonary sensitization
	has been demonstrated in laboratory animal studies.
Skin/Eye irritation	Can cause severe eye and moderate skin irritation.
Specific Target Organ Toxicity - Repeated exposure	Repeated skin exposure to solutions of 2% or more formaldehyde has caused skin allergic reactions.
Specific Target Organ Toxicity - Single	No data.
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) Mutagenicity	1,600 mg/kg 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 Ethyl Ketone(78-	93-3)
Aspiration toxicity	Product: May be harmful if swallowed and enters airways.
Carcinogenicity	Remarks: This information is not available, Carcinogenicity-Assement: Not classified as a human carcinogen.
Further information	Product Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.,
Germ cell mutagenicity	Genotoxicity in vitro: Test Type: Ames test, Metabolic activation: with and without metabolic activation, Method OECD Test Guideline 471
LC50 (mouse) inhalation	320 mg/l (4 h exposure)
LC50 (rat) Oral	3737 mg/kg
LD50 (rabbit) dermal	6,480 mg/kg
Reproductive toxicity	Effects on fetal development, Species: rat female, Application Route: Inhalation, Dose: 400, 1000, 3000 ppm,
Respiratory or skin sensitsation	Test Type: Buehler Test, Species guinea pig, Method OECD Test Guideline 406, Result: Did not cause sensitisation on laboratory animals.
Serious eye damage/ eye irritation Skin	Remarks: Severe skin irritation, Species rabbit, Exposure time 24 h, Result: Irritation to eyes Remarks: Moderate skin irritation, Species rabbit, Exposure time 24 h, Result: Mild skin irritation
SKIN corrosion/irritation STOT - repeated	Product: No data available, Components: No data available.
STOT - repeated exposure STOT - single exposure	Product: No data available, Components: No data available. Product: Target Organs: Cental Nervous system, Components: Exposure routes: Inhalation,
Methyl Ethyl Ketoxime(9	Product: Target Organs: Central Nervous system
Additional Information	Repeated dose toxicity - Rat - male - Drinking - No observed adverse effect level - 25 mg/kg
	Repeated dose toxicity - Rat - male and female - inhalation (vapour) - No observed adverse effect level - 0.009 mg/kg RTECS: EL9275000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Aspiration hazard	No data available.
Carcinogenicity	Limited evidence of carcinogenicity in animal studies 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	in vitro assay S. typhimurium Result: negative Drosophila melanogaster - male Result: negative.
LC50 Inhalation - Rat -	4.83 mg/l, 4 h, Rat - male & female (OECD Test Guideline 403)
male & female	
LD50 Dermal - Rabbit	1,000 - 1,800 mg/kg
LD50 Oral - Rat - Acute	2,236 mg/kg, Oral - Rat - (OECD Test Guideline 401)
toxicity	
Reproductive toxicity	No data available.
Respiratory or skin	Buehler Test - Guinea pig May cause sensitization by skin contact. (OECD Test Guideline 406)
sensitization Serious eve	Eyes - Rabbit Result- Risk of serious damage to eyes. (OECD Test Guideline 405)
damage/eye irritation	Eyes - Rabbit Result- Risk of serious darrage to eyes. (OECD rest Guideline 405)
Skin	Skin - Rabbit Result: No skin irritation (OECD Test Guideline 404)
corrosion/irritation	
Specific target organ	No data available.
toxicity - repeated	
exposure	
Specific target organ	No data available.
toxicity - single	
exposure	
n-Butyl Acetate(123-86-	
Aspiration hazard	No data available.
Carcinogenicity Inhalation	No data available.
LD-50 Dermal -	> 16ml/kg
(Rabbit)	
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	Skin Sensitization:, (Guinea Pig) - non-sensitizing.
sensitization	
Serious eye	(Rabbit, 24 h): none
damage/eye irritation Skin	(Rabbit, 24 h): none
corrosion/irritation	(Rabbit, 24 II): None
Specific target organ	No data available.
toxicity - repeated	
exposure	
Specific target organ	Narcotic effect.
toxicity - single	
exposure	
P.M. Acetate(108-65-6)	
Aspiration hazard	No data available.
Carcinogenicity	No data available.
LC50 - Inhalation Rat	>4345 ppm (Rat, 6 h) >5000 mg/kg
LD50 - Dermal - Rabbit LD50 - Oral - Rat	6,190 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	Skin Sensitization:, (Guinea Pig) - non-sensitizing
sensitization	
Serious eye	(Rabbit): very slight
damage/eye irritation	
Skin	Specified substance(s) 2-methoxy-1-methylethyl acetate (Rabbit, 4 h): none (Rabbit, 24 h):
corrosion/irritation	none.
Specific target organ	No data available.
toxicity - repeated exposure	
Specific target organ	No data available.
toxicity - single	
exposure	
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 regrangenic periods increase incidences of alveolar/bronchiar neoplasmin, increase incidences of nepatocellular carcinomas GLP; yes Carcinogenicity - Assessment : Carcinogenicity classification neposible Germ cell mutagenicity Test Species: Test Type: Chromesome abarration test in vitro Test species: Chronese Chromesome abarration test in vitro Test species: mouse hymphoma cells Metabolic activation: with and without metabolic activation assay Test species: mouse (male APP neo 1: Test Type: Chromesome abarrative) in vivo : Test Type: Chromesome abarrative and the control of CDC Test Guideline 474 Result: regative GLP; yes Test Type: Chro Nat Adamage and/or repair Test species: mouse (male and temale) Application Route: Inhalation Method: OECD Test Guideline 474 Result: regative GLP; yes Test Type: Chro Test Guideline 486 mutagenicity. Assessment: Ti: Nov totes did not show (male and temale) Application Route: Inhalation Method: OECD Test Guideline 486 mutagenicity. Assessment: The component/mixture is moderately toxic after short term inhalation. L500 (Mouse, Mele) 10 mg/l. Assessment: The component/mixture is moderately toxic after short term inhalation. L500 (rabbit) 15,433 mg/kg Reproductive toxicity Species: rat, male and female NAPL: TS mg/kg Application Route: Oral Exosore: The Species in Application Route: Thislation Dose: 0, 100, 500, 1000, 2000 ppm Daration of Single Treatment: 51 G General Routed of test wights. Reproductive toxicity Species: rat Type: Tone generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 100, 500, 1000, 2000 ppm Daration of Single Treatment: 15 d General Routed of test w		
Image: Provide Characterization of the set		carcinomas GLP: yes Carcinogenicity - Assessment : Carcinogenicity classification not possible
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 bynd and theod: OECD Test Guideline 407 GLP: yes Symptoms: Increased kidney and liver weights Reproductive toxicity Ffects 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: 100 ppm Symptoms: Reduced foetal weight. Reduced offspring weight gain. Method: OECD Test Guideline 415 Result: No reproductive effects. GLP: yes Effects on foetal developmental Toxicity NOAEC: 500 ppm Symptoms: Reduced body weight Method: OECD Test Guideline 414 Result: Developmental toxicity occurred at maternal toxicity dos Levels GLP: No data available Respiratory or skin Remarks: No data available Serious eye Species: rabbit Result: Mild eye irritation Remarks: No data available Strin Species: rabbit Result: Mild skin irritation Strin Species: rabbit Result: Mild eye irritation corresion/irritation Strin Species: rabbit Result: Mild eye irritation Strin Species: rabbit Result: Mild eye irritation Strin Species: rabbit Result: Mild eye irritation Strin Species: rabbi	Germ cell mutagenicity	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 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
LDS0 (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 Reproductive toxicity Effects on fertility : Test Type: One generation study Species: rat, male and female Application Oscilation of Single Treatment: 6 h General Toxicity - Parent: NOAEC: 1,000 ppm General Toxicity F1: NOAEC: 100 ppm Symptoms: Reduced forati weight. Reduced offspring weight Method: OECD Test Guideline 418 Result: No reproductive effects. GLP: yes Effects on foetal development : Species: rat Application Route: Inhalation Dose: 0, 100, 2000 pm Duration of Single Treatment: 15 d General Toxicity Maternal: NOAEC: 500 ppm Teratogenicity: NOAEC: 2,000 pm Developmental Toxicity: NOAEC: 500 ppm Symptoms: Reduced body weight Method: OECD Test Guideline 413 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 Species: rabbit Result: Mild eye irritation Remarks: No data available Serious eye Species: rabbit Result: Mild skin irritation Corrosion/irritation 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, rategory 2. STOT - registe No data available. Germ Cell Mutagenity No data for material. Not expected to c	LC50 (Mouse, Male)	
Repeated dose toxicity Species: rat, male and female NOAEL: 75 mg/kg Application Route: 10rd Exposure time: 28 d Reproductive toxicity Effects on fertilisty if rest 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 - First: NOAEC: 1000 ppm Symptoms: Reduced offspring weight gain, Method: 0ECD Test Guideline 413 Result: NoaEc: 1000 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline A14 Result: Dixicity - Marent: NOAEC: 1000 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Maternal: NOAEC: 500 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Maternal: NOAEC: 500 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Maternal: NOAEC: 500 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Maternal: NOAEC: 500 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Maternal: NOAEC: 500 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Maternal: NOAEC: 500 ppm Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Activation Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Activation Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity Activation Symptoms: Reduced body weight Method: 0ECD Test Guideline 414 Result: Dixicity - Firsting Result: Mild skin Irritation Serious eye Remarks: No data available Remark		
Route: Inhalation Dose: 0, 100, 500 and 1000 ppm Duration of Single Treatment: 6 h General Toxicity - Parent: NOACE: 1, 1000 ppm General Toxicity P1: NOAEC: 100 pm Symptoms: Reduced foetal weight. Reduced offspring weight gain. Method: OECD Test Guideline 415 Result: 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 Species: rabbit Result: Mild eye irritation Remarks: No data available String Species: rabbit Result: Mild eye irritation 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, The substance or mixture is classified as specific target organ toxicant, repeated exposure, IN expected to be an aspiration hazard. Based on physico- chemical properties of the material. Not expected to cause cancer. Germ Cell Mutagenicity No end point data for material. Not expected to cause forstite (Coll burn). Very high exposure of weakness, fatigue, mentarial. Not expected to cause forstite (Coll burn). Very high exposure of exponding gas or vaporizing liquid may cause frostite (Coll burn). Very high exposure (confined spaces / abuse) to light hydrocarbon	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:
Respiratory or skin sensitization Remarks: No data available Serious eye 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. Propane Blend(74-98-6) No end point data for material. Not expected to be an aspiration hazard. Based on physico- chemical properties of the material. Carcinogenicity No end point data for material. Not expected to cause cancer. Eye Serious Eye Damage/Tirtation: No end point data for material. , May cause mild, short-lasting discomfort to eyes. Germ Cell Mutagenicity Data available. Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 Ingestion N/A LoS (RAT) Inhalation I43 mg/I (GAS) (15 minutes) Other Information May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, emental confusion and blurred vision) and/or damage. Exposure (to rapidly expanding gas or vaporizing liquid may cause frostbite (cold burn). Very high exposure (confi	Reproductive toxicity	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 foetal weight. Reduced offspring weight gain. Method: OECD Test Guideline 415 Result: No reproductive effects. GLP: yes Effects on foetal 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
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, ategory 2. STOT - single exposure No data available. Propane Blend(74-98-6) No end point data for material. Not expected to be an aspiration hazard. Based on physico- chemical properties of the material. Carcinogenicity No end point data for material. Not expected to cause cancer. Eye Serious Eye Damage/Irritation: No end point data for material. Not expected to acuse cancer. Germ Cell Mutagenicity Data available. Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 Ingestion N/A Lactation No end point data for material. Not expected to cause harm to breast-fed children. LCS0 (RAT) Inhalation 1443 mg/I (GAS) (15 minutes) Other Information May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite (cold burn). Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abormah heart hythm (arrhythmias). Conc		
Skin Species: rabbit Result: Mild skin irritation corrosion/irritation 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. STOT - single exposure No data available. Propane Blend(74-98-6) Aspiration Aspiration No end point data for material. Not expected to be an aspiration hazard. Based on physico- chemical properties of the material. Carcinogenicity No end point data for material. Not expected to cause cancer. Eye Serious Eye Damage/Irritation: No end point data for material. Not expected to cause harm to breast-fed children. LCS0 (RAT) Inhalation N/A Lactation No end point data for material. Not expected to cause harm to breast-fed children. LCS0 (RAT) Inhalation 1443 mg/l (GAS) (15 minutes) Other Information May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Exposure to rapidly expanding gas or vaporizing liquid may cause frostilte (cold burn). Very high exposure (confined spaces / abuse) to ligh hydrocarbons may result in abnormal heart rhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or carciovascular drugs may initiate	Serious eye	Species: rabbit Result: Mild eye irritation Remarks: No data available
STOT - repeated 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. Propane Blend(74-98-6) No end point data for material. Not expected to be an aspiration hazard. Based on physico-chemical properties of the material. Carcinogenicity No end point data for material. Not expected to cause cancer. Eye Serious Eye Damage/Irritation: No end point data for material. Not expected to cause acancer. Germ Cell Mutagenicity Data available. Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 Ingestion N/A Lactation No end point data for material. Not expected to cause harm to breast-fed children. LC50 (RAT) Inhalation 1443 mg/l (GAS) (15 minutes) Other Information May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite (cold burn). Very high exposure (confined spaces / abuse) to ligh hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drug	Skin	Species: rabbit Result: Mild skin irritation
STOT - single exposure No data available. Propane Blend(74-98-6) Aspiration No end point data for material. Not expected to be an aspiration hazard. Based on physico-chemical properties of the material. Carcinogenicity No end point data for material. Not expected to cause cancer. Eye Serious Eye Damage/Irritation: No end point data for material. Germ Cell Mutagenicity Data available. Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 Ingestion N/A Lactation No end point data for material. Not expected to cause harm to breast-fed children. LC50 (RAT) Inhalation 1443 mq/l (GAS) (15 minutes) Other Information May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Exposure to rapidly expanding gas or vaporizing liquid may cause frostbite (cold burn). Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (labove occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias. Simple asphyxiant: Acts by displacing oxygen in the lungs thereby diminishing the supply of oxygen available to the blood and tissues. Symptoms include shortness of breath, rapid heart rate, incoordination, lethargy, headaches,	STOT - repeated	or repeated exposure., The substance or mixture is classified as specific target organ toxicant,
AspirationNo end point data for material. Not expected to be an aspiration hazard. Based on physico- chemical properties of the material.CarcinogenicityNo end point data for material. Not expected to cause cancer.EyeSerious Eye Damage/Irritation: No end point data for material., May cause mild, short-lasting discomfort to eyes.Germ Cell MutagenicityData available. Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471IngestionN/ALactationNo end point data for material. Not expected to cause harm to breast-fed children.LC50 (RAT) Inhalation1443 mg/l (GAS) (15 minutes)Other InformationMay cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Exposure to rapidly expanding gas or vaporizing liquid may cause forstbite (cold burn). Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias. Concurrent high stress levels and/or co-exposure to kigh levels of hydrocarbons (above available to the blood and tissues. Symptoms include shortness of breath, rapid heart rate, incoordination, lethargy, headaches, nausea, vomiting, and disorination. Continue lack of oxygen may result in convulsions, loss of consciousness and death. Since exercise increaseReproductive ToxicityData available. Not expected to be a reproductive toxicant. Based		
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Toxicity (STOT)for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 422Repeated Exposure		
	Toxicity (STOT)	
		No end point data for material. Not expected to cause organ damage from a single exposure

Toxicity (STOT) Single	
Exposure:	
Toluene(108-88-3)	
Aspiration toxicity	Aspiration Toxicity - Category 1
Carcinogenicity	Species: rat, (male and female) Application Route: inhalation (vapour) Exposure time: 103 wks Dose: 0, 600, 1200 ppm Frequency of Treatment: 6.5 h/d, 5 d/wk NOAEL: No observed adverse effect level: 1,200 ppm Method: OECD Test Guideline 453 Result: did not display carcinogenic properties Symptoms: Erosion of nasal epithelium Species: rat, (male and female) Application Route: inhalation (vapour) Exposure time: 103 wks Dose: 0, 600, 1200 ppm Frequency of Treatment: 6.5 h/d, 5 d/wk NOAEL: No observed adverse effect level: 1,200 ppm Method: OECD Test Guideline 453 Result: did not display carcinogenic properties Symptoms: Erosion of nasal epithelium Species: rat, (male and female) Application Route: inhalation (vapour) Exposure time: 103 wks Dose: 0, 600, 1200 ppm Frequency of Treatment: 6.5 h/d, 5 d/wk NOAEL: No observed adverse effect level: 1,200 ppm Method: OECD Test Guideline 453 Result: did not display carcinogenic properties Symptoms: Erosion of nasal
Further information	Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.
Germ cell mutagenicity	Genotoxicity in vitro : Test Type: Mammalian cell gene mutation assay Test species: Mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative : Test Type: Ames test Metabolic activation: with and without metabolic activation Result: negative Genotoxicity in vivo : Test Type: Chromosome aberration assay in vivo Test species: rat Cell type: Bone marrow Application Route: Intraperitoneal Exposure time: 1 or 5 d Dose: 0, 0.025, 0.082, 0.247 ml/kg Result: negative Test Type: Dominant lethal assay Test species: mouse (male) Application Route: inhalation (vapour) Exposure time: 6 h/d, 5 d/wk for 8 wks Dose: 0, 100, 400 ppm Method: OECD Test Guideline 478 Result: negative Germ cell mutagenicity Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
LC50 (rat, male and formale)	28.1 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
female) LD50 (rabbit)	> 5,000 mg/kg
LD50 (rat, male)	> 5,580 mg/kg
Repeated dose toxicity	Species: mouse, male and female NOAEL: 625 mg/kg LOAEL: 1,250 mg/kg Application Route: Oral Exposure time: 13 wks Number of exposures: 5 d/wk Dose: 312, 625, 1250, 2500, 5000 Group: yes GLP: yes Symptoms: death, Increased liver weight, ataxia, hypoactivity, hypothermia Species: rat, male and female NOAEL: 300 Application Route: inhalation (vapour) Exposure time: 6, 12, or 18 mths Number of exposures: 6 h/d, 5 d/wk Dose: 0, 30, 100, 300 ppm Method: OECD Test Guideline 453 Repeated dose toxicity - Assessment : Causes skin irritation.
Reproductive toxicity	Effects on fertility : Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 100, 500, 2000 ppm Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: 500 ppm General Toxicity F1: NOAEC: 500 ppm Fertility: NOAEC: 2,000 ppm Symptoms: Reduced maternal body weight gain. Reduced offspring weight gain. Method: OECD Test Guideline 416 Result: Animal testing did not show any effects on fertility. GLP: yes Test Type: Fertility Species: rat, male and female Application Route: inhalation (vapour) Dose: 0, 600, 1200 ppm Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: 600 ppm Symptoms: Decreased sperm count Result: Animal testing did not show any effects on fertility.
Reproductive toxicity (cont.)	Effects on foetal development : Species: rat Application Route: inhalation (vapour) Dose: 0, 250, 750, 1500, 3000 ppm Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day General Toxicity Maternal: NOAEC: 750 ppm Developmental Toxicity: NOAEC: 750 ppm Symptoms: Maternal toxicity, Reduced body weight, Skeletal malformations. GLP: yes Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
Respiratory or skin sensitization	Test Type: Maximization Test (GPMT) Species: guinea pig Result: Did not cause sensitization on laboratory animals. GLP: yes
Serious eye damage/eye irritation	Species: rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405
Skin corrosion/irritation	Species: rabbit Exposure time: 4 h Result: Irritating to skin.
STOT - repeated exposure	Inhalation Auditory system, Eyes May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
STOT - single exposure	Exposure routes: Target Organs: Assessment: Remarks: Inhalation Central nervous system May cause drowsiness or dizziness. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

12. ECOLOGICAL INFORMATION

Acetic acid methyl ester	· methyl ,acetate(79-20-9)
Bioaccumulative	No data available.
potential	
EC50 Daphnia magna -	1,026.7 mg/l - 48 h, Daphnia magna (Water flea) - OECD Test Guideline 202)
Toxicity to daphnia and other aquatic	
invertebrates	
EC50 Desmodesmus	120 mg/l - 72 h, Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test Guideline
subspicatus - Toxicity	201)
to algae	
EC50 Pseudomonas	6,000 mg/l - 16 h, Pseudomonas putida
putida - Toxicity to	
bacteria	
LC50 Danio rerio -	250-350 mg/l - 96 h, - Danio rerio (zebra fish) - (OECD Test Guideline 203)
Toxicity to fish	
Mobility in soil	No data available.
Other adverse affects	No data available.
Persistence and	Biodegradability aerobic - Exposure time 28 d Result: 70 % - Readily biodegradable (OECD Test
degradability Results of PBT and	Guideline 301D) PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
vPvB assessment	רטין אראס מאפאאוופות ווטר מאמוומטוב מא כוופווווכמו אמופגץ מאאפאאוופות ווטר ופקעוויפט/ווטר כסחמעכדפם.
Acetone(67-64-1)	
Bioacculative potential	Parition coefficient: n-octanol/water: log Pow: -0.24
EC50 (Daphnia magna	7,630 mg/l (Exposure time 48 h); Test substance: Acetone
(Water flea))	
LC50 (Oncorhynchus	6,100 mg/l (Exposure time: 48 h)
mykiss (rainbow	
trout))	
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:
Persistence and	No data available. Biodegrability: Remarks: No data available
degrability	Diouegrability: Remarks: No uala avaliable
Toxicity to algee	Remarks: No data available
Benzene(71-43-2)	
Additional ecological	Toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional
information	handling or disposal. Toxic to aquatic life.
EC50	10 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) static test substance: yes
	Method: OECD Test Guideline 202
Ecotoxicology	Acute aquatic toxicity Benzene : Toxic to aquatic life. Chronic aquatic toxicity Benzene : Harmful
Assessment	to aquatic life with long lasting effects.
ErC50	100 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Test
LC50	substance: yes Method: OECD Test Guideline 201
LC30	5.3 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) flow-through test substance: yes Method: OECD Test Guideline 203
Persistence and	Biodegradability : This material is expected to be readily biodegradable.
degradability	
Results of PBT	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This
assessment	substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Carbon Black(1333-86-4	
Behavior in water	Activated sludge, EC0 (3 h) > 800 mg/L. DEV L3 (TTC test)
treatment plants	
Bioaccumulation	Potential bioaccumulation is not expected because of the physicochemical properties of the
Potential	substance
EC50 (Scenedesmus	> 10,000 mg/L, OECD (Guideline 201)
subspicatus) EC50 Daphnia magna	>5600 mg/l (24 h) OECD (Guideline 202)
(waterflea)	
Environmental fate	Carbon black is an inert solid, stable and insoluble in water or organic solvents. Its vapour
	pressure is negligible. Based on these properties it is expected that carbon black will not occur in
	air or water in relevant amounts. Also potential for distribution via water or air can be dismissed.
	The deposition in soil or sediments is therefore the most relevant compartment of fate in the
	environment.
LC50 Brachydanio reio	>1000 mg/l (96 h) OECD (Guideline 203)
(zebrafish)	$\sim 10.000 \text{ mg/l}$ OECD (Cuideling 201)
NOEC 50 (Scenedesmus	> 10,000 mg/L, OECD (Guideline 201)
(Sceneuesinus	
subspicatus)	

Cumene(98-82-8)	
Bioaccumulative	No data available.
potential	
EC50 - Daphnia (water	2.14 mg/l - 48 h (OECD Test Guideline 202), Daphnia (water flea)
flea) - Toxicity to	
daphnia and other	
aquatic invertebrates	
EC50 -	2.60 mg/l - 72 h, Pseudokirchneriella subcapitata (green algae)
Pseudokirchneriella	
subcapitata (green	
algae) - Toxicity to	
algae	
LC50 - Oncorhynchus	4.8 mg/l - 96 h, Oncorhynchus mykiss (rainbow trout)
mykiss (rainbow trout)	
Toxicity to fish	
Mobility in soil	No data available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
other deverse enects	Toxic to aquatic life with long lasting effects.
Persistence and	Biodegradability Result: - According to the results of tests of biodegradability this product is not
degradability	readily biodegradable.
Results of PBT and	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
vPvB assessment	PDT/VPVD assessment not available as chemical safety assessment not required/not conducted
Diethylene glycol n-buty	
12.6 Other adverse	No data available.
effects	
Bioaccumulative	Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
potential	
EC50 Daphnia magna -	>100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.)
Toxicity to daphnia and	
other aquatic	
invertebrates	
EC50 Desmodesmus	100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test
subspicatus - Toxicity	Guideline 201)
of algae	
LC50 Lepomis	1,300 mg/l - 96 h - Lepomis macrochirus (OECD Test Guideline 203)
macrochirus - Toxicity	
to fish	
LC50 Pseudomonas	1170 mg/l - 16 h - Pseudomonas putida
putida - Toxicity to	
bacteria	
Mobility in soil	Poteitional for mobility in soil very high (koc between 0 and 50).
Persistence and	Biodegradability aerobic - Exposure time 28 d Result: 91.7 % - Readily biodegradable (OECD
degradability	Test Guideline 301B)
	yl Ether Acetate(88917-22-0)
Bioaccumulative	No Data available.
potential	
Mobility in soil	No Data available.
Other adverse effects	No Data available.
PBT and vPvB	No Data available.
assessment	
Persistence and	No Data available.
degradability	
<u> </u>	No Data available
Toxicity	No Data available.
Ethylene glycol mono bu	
Bioaccumulative	Partition coefficient: n-octanol/water: log Pow: 0.83
potential	
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	aerobic Inoculum: Activated sludge, domestic, adaption not specified, Result: Readily
degradability	biodegradable. Biodegradation: 90.4 % Exposure time: 28 d Method: OECD Test Guideline 301B
<u> </u>	GLP: no
Product	Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA
Product	Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances:

EC50 Daphnia - Tackichy to Mare Flee 11.3-18 mg/l (48 h), Daphnia magna LC50 Oncorfynchus - Tackichy to Magae 100-136 mg/l, (96 h), Oncorhynchus mykiss Tackichy to Magae Not available. Methy Arryl Kennethines 10 dels available. Aquitarimethic brokes Not dels available. Chronic Toxichy (Fish) Not dels available. Chronic Toxichy (Fish) Not dels available. Crisci (Scienestrum 9.2 mg/l, 72 h Cassesment Wo dels available. Persistence and degradability onl No dels available. Persistence and degradability 69 % (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological degradability Partition coefficient: n-octanol/water: log Pow: 2.49 No dels available. VPUB assessment No deta available. Methyl Ethyl Kotone(70=93-3) Bioaccumulative Partition coefficient: n-octanol/water: log Pow: 2.49 potential Podeta available. Cl550 (Daphnia) 293 mg/l (48 h; Pseudokirchnerielia subcapitata (Green Algee)) LC50 (This) 293 mg/l (48 h; Pseudokirchnerielia subcapitata (Green Algee)) LC50 (This) 293 mg/l (58 h; Repeating and (Water fies)) LC50 (Daphnia) 308 mg/l (58 h; R		
Toxicity to Water Fies 100-136 mg/l, (36 h), Oncorhynchus mykiss Toxicity to Kige Not available. Methyl Amyl Ketone(110-43-0) Aquatic inverterates No data available. No data available. Expected for the available. No data available. Protectiv Kong No data available. CFG0 (Selemastrum) 98.2 mg/l, (26 h) Minnow) Acute toxicity No data available. Persistence and G9 (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological Oxygen Demand BOD-51.1,770 mg/g BOD-20.2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOD/COD rotix on data available. Why B assessment No data available. Wy B assessment No data available. Deptortmin Partition coefficient: n-octanol/water: log Pow: 2.49 Deptortmin Partition coefficient: n-octanol/water: log Pow: 2.49 Deptortmin Partition coefficient: n-octanol/water flea) LCS0 (Dapha) 303 mg/l (96 h; Pimephales promelas (Fathead minnow)) Mobility in all No data available No data available Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section codgradability No data available	Formaldehyde(50-00-0)	
LCS0 Oncertynchus - 100-136 mg/l, (96 h), Oncertynchus mykiss Toxicity to Algae Not available. Metyl Amyl Koroe,(110-430) Aduatic invertebrates No data available. Aguatic invertebrates No data available. Exception Chronic Toxicity (Fish) No data available. Exception Chronic Toxicity (Fish) No data available. Exception Chronic Toxicity (Fish) No data available. Exception Persistence and 69 % (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological Oxygen Demand BOD-51 1,770 mg/g BOD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOD/COD ratio No data available. Methyl Etnyl Ketome(78 - 29 - 3) Bioaccumulative Partition coefficient: n-octanol/water: log Pow: 2,49 Potential CSS (Naphnia) 308 mg/l (48 h; Pseudokirchneriella subcapitat (Green Algee)) ECSS (Naphnia) LCSD (Fish) 293 mg/l (48 h; Pseudokirchneriella subcapitat (Green Algee)) ECSS (Naphnia) 308 mg/l (48 h; Pseudokirchneriella subcapitat (Green Algee)) LCSD (Fish) 293 mg/l (48 h; Pseudokirchneriella subcapitat (Green Algee)) ECSS (Naphnia) 308 mg/l (48 h; Pseudokirchneriella subcapitat (Green Algee)) LCSD (Fish) 293 mg/l (48 h; Pseudokirchneriella subcapitat) Ecsen 602 Class 1. Substances:		11.3-18 mg/l (48 h), Daphnia magna
Toxicly to Algae Not available. Methyl Amyl Koroc(110-430) Aquati invertebrates No data available. Bioaccumulative No data available. Crunci Toxicity (Fish) No data available. ErCS0 (Selenastrum 98.2 mg/n, 72 h Capricornutum) 131 mg/n (96 h) Mini Accute toxiny No data available. Mini Accute toxiny 69 % (28 d, Ready Blodgeradability - CO2 in Sealed Vessels (Headspace Test)). Biological oxygen Demand BOD. Mossistance and 69 % (28 d, Ready Blodgeradability - CO2 in Sealed Vessels (Headspace Test)). Biological oxygen Demand BOD. Methyl Ethyl Keon(78-93-3) Bioaccumulative Partition cofficient: n-octanol/water: log Pow: 2.49 Results of PBT and No data available. No data available. Methyl Ethyl Keon(78-93-3) Bioaccumulative Bioaccumulative Diodgeradability: 100 gdfa available. Partition cofficient: n-octanol/water: log Pow: 2.49 Probut Partition cofficient: n-octanol/water: log Pow: 2.49 Power Diodgeradability: 100 data available. Power Product Partition cofficient: n-octanol/water: log Power 2.49 Product	LC50 Oncorhynchus -	100-136 mg/l, (96 h), Oncorhynchus mykiss
Methyl Anyl Ketone (110 - 43-0) Aquatc invertentase No data available. Bioaccumulative potential No data available. Chronic Toxicity (Fish) No data available. ErC50 (Selenstrum 98, 200, 200, 200, 200, 200, 200, 200, 20		Not available.
Aquatic invertebrates No data available. Bioaccumulative No data available. Chronic Toxicity (Fish) No data available. ErC50 (Selenastrum) 98.2 mg/l, 72 h Capnicornum) 131 mg/l, 766 h) Minnool Acute toxicity No data available. Minnool Acute toxicity No data available. Model available. No data available. Minnool Acute toxicity No data available. Model available. No data available. Model available. No data available. VPM assessment No data available. Methyl Ethyl Ktone(78-93-3) Bioaccumulative Bioaccumulative Partition coefficient: n-octanol/water: log Pow: 2.49 potential CS50 (Dapha) 308 mg/l (48 h; Daphnia magna (Water fiea)) LCS0 (fish) 293 mg/l (69 ch; Pimephales promelas (Fathead minnow)) Mobility in soil No data available. Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: No data available. Productive daphnia 100 mg/l, 96 h, - Onyzias latipes - (OECD Test Guideline 202) <td></td> <td></td>		
Bioaccumulative potential No data available. Chronic Toxicity (Fish) No data available. ErC50 (Selenastrum 98.2 mg/, 72 h capricornutum)		
optential Optent Chronic Toxicity (Fish) No data available. erc30 (Selenastrum) 98.2 mg/l, 72 h LC50 (Fathead 131 mg/l , /96 h) Mobility in soil No data available. Mobility in soil No data available. Persistence and 69 % (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological Oxygen Demand BDD-5: 1,770 mg/g BDD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOU/CDD ratio N data available. VPVB assessment No data available. VPVB assessment No data available. Potential 2029 mg/l (48 h; Pasudokirchneriella subcapitata (Green Algee)) EC50 (Daphnia) 208 mg/l (48 h; Pasudokirchneriella subcapitata (Green Algee)) LC50 (figle) 2029 mg/l (48 h; Pasudokirchneriella subcapitata (Green Algee)) LC50 (Japital) No data available. No data available. No data available. Other advitin in Solid (Sing mg/l (Sing h; Pimephales promotials (Fatheada minnow)) LC50 (Fathead minnow)) LC50 (Japita) No data available. No data available. Other adviting in gravity in magna (Water fiea) LC50 (Fathead minnow)) Distacrumulative gravinon (Cater Protection of Environment, Part 82 Protection		
ErCS0 (Selenastrum) 98.2 mg/l, 72 h LCS0 (Fathead 131 mg/l, / (96 h) Mobility in soil No data available. Mobility in soil No data available. Persistence and 69 % (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological Oxygen Demand BOD-S1 1,770 mg/g BOD-202 : 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/l, 800/COD ratio No data available. WvD8 assessment No data available. WvD8 assessment Partition coefficient: n-octanol/water: log Pow: 2.49 Bioaccumulative Partition coefficient: n-octanol/water files) ECS0 (Palets) 2029 mg/l (48 h; Pseudokrichneriella subcapitata (Green Algee)) ECS0 (Palets) 2029 mg/l (48 h; Pseudokrichneriella subcapitata (Green Algee)) ECS0 (Palets) 2029 mg/l (48 h; Pseudokrichneriella subcapitata (Green Algee)) ECS0 (Palets) 2039 mg/l (48 h; Pseudokrichneriella subcapitata (Green Algee)) Difter adverse effects No data available Other adverse effects No data available Bioaccumulative Biodegradability: Concentration: 2mg/l; Result: Readily biodegradability: Gozen - CAA Regulation: 40CFC Protection of Environment, Part 82 Protection of Stratospheric Ozon - C.4C Results of PBT ad Solo organis and solia bio (Green Algee) - (OECD Test Guideline 202)	potential	
capriconutum) I.T.G.S. (Fathead Ninnow) Acute toxicity LCS0 (Fathead Minnow) Acute toxicity No data available. Persistence and degradability Koygen Demand BOD-5: 1,707 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 wtwly Ethyl Ketone(78-93-3) Partition coefficient: n-octanol/water: log Pow: 2.49 potential ECS0 (Algee) 2029 mg/ (48 h; Pseudokirchneriella subcapitat (Green Algee)) ECS0 (Algee) 2029 mg/ (48 h; Pseudokirchneriella subcapitat (Green Algee)) ECS0 (Algee) 2029 mg/ (48 h; Pseudokirchneriella subcapitat (Green Algee)) ECS0 (Algee) 2029 mg/ (48 h; Pseudokirchneriella subcapitat (Green Algee)) ECS0 (Algee) 2039 mg/ (48 h; Pseudokirchneriella subcapitat (Green Algee)) LCS0 (fish) 293 mg/ (48 h; Pseudokirchneriella subcapitat (Green Algee)) LCS0 (fish) 293 mg/ (48 h; Pseudokirchneriella subcapitat (Green Algee)) Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Bioaccumulative Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DCC D Test Guideline 30SC) CCS0 - Copathila magna >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) CCS0 - Createsmulative		
LC50 (Fathead 131 mg/l, (96 h) Minnow) Acute backty No data available. Persistence and 69/(8, BCR)(Coratio No data available. Oxygen Demand BOD-51, 1770 mg/g BOD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOD/COD ratio No data available. VPUB assessment No data available. Presistence and 69/(8, BOD/COD ratio No data available. No data available. VPUB assessment Partition coefficient: n-octanol/water: log Pow: 2.49 potential EC50 (loge) 2029 mg/l (48 h; Pseudokirchneriella subcapitata (Green Algee)) LC50 (hojh) 293 mg/l (96 h; Pimephales promelas (Fathead minnow)) No data available Other adverse effects No data available. No data available Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 502 Class 1 Substances: Methyl Ethyl Ketoximc(96-29-7) Bioaccumulative Bioaccumulative Bioaccumulative Cloce Test Guideline 30SC) 100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) - Toxicity to daphnia No data available. - 2 mg/l Biooccumulative Bioaccumulative of data available. 00 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 201) - Toxicity to fish No da		98.2 mg/l, 72 h
Mobility in soil No data available. Persistence and 69 (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological Oxygen Demand BOD-51: 1,770 mg/g BOD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOP(COD ratio No data available. Results of PBT and No data available. VPU assessment Partition coefficient: n-octanol/water: log Pow: 2.49 Bioaccumulative Partition coefficient: n-octanol/water: log Pow: 2.49 DefS0 (Agee) 2029 mg/l (48 h; Pseudokr/Chheriella subcapitata (Green Algee)) ECS0 (Daphnia) 308 mg/l (48 h; Pseudokr/Chheriella subcapitata (Green Algee)) Mobility in soil No data available. Other adverse effects No data available. Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketoxime(96-29-7) Bioaccumulative Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DC T est Guideline 30SC) Product Regulation: 40, Pseudokr.chneriella subcapitata (Green Algae) - (OECD Test Guideline 202) - Toxicity to daphnia >100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) - Toxicity to daphnia >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) - Toxicity to	LC50 (Fathead	131 mg/l , (96 h)
Persistence and degradability (yygen Demand BOD-5: 1, 720 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. Nethyl Ethyl Ketone(78-3)-3) Bioaccumulative potential Partition coefficient: n-octanol/water: log Pow: 2.49 potential ECS0 (Algee) 2029 mg/l (48 h; Pseudokirchneriella subcapitata (Green Algee)) ECS0 (Rohnia) ECS0 (Isohnia) 208 mg/l (48 h; Pseudokirchneriella subcapitata (Green Algee)) ECS0 (Rohnia) ICS0 (Daohnia) 2093 mg/l (96 h; Primephales promelas (Fathead minnow)) Mo data available Other adverse effects No data available Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; degradability Perduct Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozoe - CAA Section 602 Class 1 Substances: Bioaccumulative Bioaccumulation (CPCI Test Guideline 30SC) CECS0 - Capathia magna >100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) - Toxicity to daphna and other aquatic invertebrates >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) - Toxicity to daphna and other aquatic invertebrates No data available. CES0 - Cycas latipes - >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203)		Ne data available
degradability Oxygen Dernand BOD-5: 1,770 mg/g BOD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOD/200 ratio No data available. Results of PBT and No data available. VPVB assessment No data available. Methyl Ethyl Ketoner(78-93-3) Bioaccumulative Portential Partition coefficient: n-octanol/water: log Pow: 2.49 potential 2029 mg/l (48 h; Daphnia magna (Water flea)) LC50 (Gaphnia) 308 mg/l (48 h; Daphnia magna (Water flea)) LC50 (Gaphnia) 293 mg/l (96 h; Pi Imephales promelas (Fathead minnow)) Modiat available No data available Other adverse effects No data available Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketoxime(56-29-7) Bioaccumulative Bioaccumulative Bioaccumulative Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DCC) Test Guideline 30SC) CS0 - Seenedesmus 11.6 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae) - (OECD Test Guideline 201) Toxicity to daphnia No data available. CtS0 - Seenedesmus 11.6 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) Toxicity to		
Results of PBT and VPVB assessment No data available. Methyl Ethyl Ketone(78-93-3) Bioaccumulative Partition coefficient: n-octanol/water: log Pow: 2.49 Dotential 2029 mg/l (48 h; Pasudokincheriella subcapitata (Green Algee)) EC50 (Daphial) 308 mg/l (48 h; Daphnia magna (Water flea)) LC50 (Fish) 2939 mg/l (46 h; Pimephales promelas (Fathead minnow)) Mobility in soil No data available Other adverse effects No data available Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketoxine(96-29-7) Bioaccumulative Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DECD Test Guideline 305C) EC50 - Septinia magna - Toxicity to dapinia and other aquetic invertebrates 11.6 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae) - (OECD Test Guideline 201) Toxicity to daga C50 - Oryzias latipes - ioxicity to daga >100 mg/l, 96 h, - Oryzias latipes - 00 tortity to daga No data available. MetKO has been determined to be biodegradable. Persistence and degradability MetXO has been determined to be biodegradable. PostrivPrvB assessment not available.		Oxygen Demand BOD-5: 1,770 mg/g BOD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420
Methyl Ethyl Ketone(78-93-3) Bioaccumulative potential Partition coefficient: n-octanol/water: log Pow: 2.49 EC50 (Algee) 2029 mg/l (48 h; Daphnia magna (Water flea)) EC50 (Spannia) 308 mg/l (48 h; Daphnia magna (Water flea)) LC50 (fsh) 2993 mg/l (96 h; Pimephales promelas (Fathead minnow)) Mobility in soil No data available Other adverse effects No data available Persistence and degradability Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; degradability Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketomice(96-29-7) Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DECD Test Guideline 305C) EC50 - Daphnia magna - Toxicity to daphnia and other aquetic invertebrates >100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 201) Toxicity to daphnia and other aquetic Cher adverse effects No data available. Other adverse effects No data available. Other adverse effects No data available. Other adverse effects No data available. Persistence and degradability MetKO has been determined to be biodegradable. <td>Results of PBT and</td> <td></td>	Results of PBT and	
Bioaccumulative potential Partition coefficient: n-octanol/water: log Pow: 2.49 EC50 (Algee) 2029 mg/l (48 h; Daphnia magna (Water flea)) LC50 (fish) 293 mg/l (96 h; Pimephales promelas (Fathead minnow)) Mobility in soil No data available Other adverse effect No data available Persistence and degradability Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; degradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; degradability Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances: Methyl Ethyl Ketoxime(96-29-7) Bioaccumulation Cyprinus carpic (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (OECD Test Guideline 305C) EC50 - Daphnia magna - Toxicity to daphnia and other aquatic invertebrates >100 mg/l, 46 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) - Toxicity to daphnia and other aquatic invertebrates >11.6 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae) - (OECD Test Guideline 201) CS0 - Osphinia magna - Toxicity to faish - Persistence and degradability >100 mg/l, 96 h, - Oryzias latipes - (DECD Test Guideline 203) Other adverse effects No data available. No data available. No data available. PitryPvP B assessment not avaliable		
potential Description ECS0 (Agee) 2029 mg/l (48 h; Dsphnia magna (Water fiea)) ECS0 (Daphnia) 308 mg/l (48 h; Daphnia magna (Water fiea)) LCS0 (fish) 293 mg/l (96 h; Pimephales promelas (Fathead minnow)) Mobility in soil No data available Other adverse effects No data available Persistence and degradability Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances: Methyl Ettyl Ketoxime(96-629-7) Bioaccumulative Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DECD = st Guideline 305C) ECS0 - Daphnia magna >100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) - Toxicity to daphnia and other aquatic invertebrates 11.6 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae) - (OECD Test Guideline 201) Captcornutum - Toxicity to dispa CS0 - Oryzias latipes - Persistence and degradability >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) Toxicity to fish Mobility in soil No data available. Other adverse effects No data available. Persistence and degradability PBT/VPVB assessment not available as chemical safety assessment not required/not conducted VPVB assessment No data available. Is m		
EC50 (Algee) 2029 mg/l (48 h; Pseudokirchneriella subcapitata (Green Algee)) EC50 (Algee) 2093 mg/l (46 h; Pimephales promelas (Fathea) LC50 (fish) 2993 mg/l (96 h; Pimephales promelas (Fathea) Other adverse effects No data available Persistence and decardability Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; decardability Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketoxime(96-29-7) Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (OECD Test Guideline 305C) EC50 - Daphnial and other aquatic invertebrates >100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) - Toxicity to daphnia and other aquatic invertebrates >11.6 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae) - (OECD Test Guideline 201) C250 - Scenedesmus CL50 - Oryzias latipes - >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) Other adverse effects No data available. MetKO has been determined to be biodegradable. Persistence and degradability MetXO has been determined to be biodegradable. No data available. PUPVPVB assesesment not available. No data available.		
EC50 (Daphnia) 308 mg/l (48 h; Daphnia magna (Water flea)) LC50 (fish) 2993 mg/l (26 h; Pimephales promelas (Fathead minnow)) Mobility in soil No data available Other adverse effects No data available Persistence and Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketoxime(56-59-7) Bioaccumulation Cyprinus Carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DECD Test Guideline 305C) EC50 - Spapinia magna and other aquatic invertebrates >100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) C50 - Orzias latipes - arpicornutum - Toxicity to algae >100 mg/l, 96 h, - Orzias latipes - (OECD Test Guideline 203) Corcity to algae No data available. Other adverse effects No data available. Other adverse effects No data available. Persistence and degradability vPVB assessment PETy/vPVB assessment not available as		
EC50 (Daphnia) 308 mg/l (48 h; Daphnia magna (Water flea)) LC50 (fish) 2993 mg/l (26 h; Pimephales promelas (Fathead minnow)) Mobility in soil No data available Other adverse effects No data available Persistence and Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; Biodegradability Product Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketoxime(56-59-7) Bioaccumulation Cyprinus Carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (DECD Test Guideline 305C) EC50 - Spapinia magna and other aquatic invertebrates >100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202) C50 - Orzias latipes - arpicornutum - Toxicity to algae >100 mg/l, 96 h, - Orzias latipes - (OECD Test Guideline 203) Corcity to algae No data available. Other adverse effects No data available. Other adverse effects No data available. Persistence and degradability vPVB assessment PETy/vPVB assessment not available as	EC50 (Algee)	
LCS0 (fish) 2993 mg/l (96 h; Pimephales promelas (Fathead minnow)) Mobility in soil No data available Other adverse effects No data available Persistence and Biodegradability: Gegradability Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: Methyl Ethyl Ketoxime(96-29-7) Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (OECD Test Guideline 305C) ECS0 - Daphnia magna >100 mg/l, 48 h, Daphnia magna (Water fiea) - (OECD Test Guideline 202) - Toxicity to daphnia and other aquatic invertebrates >100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203) Capricornutum - Toxicity to fish No data available. Mobility in soil No data available. Other adverse effects No data available. Other adverse effects No data available. Other adverse effects No data available. Persistence and degradability No data available. Porty & assessment to available as chemical safety assessment not required/not conducted vPVB assessment to available. Porty & assessment to available. No data available. Other adverse effects No data available.		
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Bioaccumulative No data available.		NOEC (daphaia 21 d): $> -100 \text{ mg/l}$ EC E0 (daphaia 21 d): $> 100 \text{ mg/l}$
Page 16 of 21	Divacculliulative	

363 mg/g 1,050 mg/g
5,5 7 5,5
No data available.
LC-50 (Oryzias latipes, 14 d): 63.5 mg/l NOEC (Oryzias latipes, 14 d): 47.5 mg/l
408 mg/l (48 h)
161 mg/l (96 h)
No data available.
No data available.
Biodegradation - 90 % (28 d, Ready Biodegradability: CO2 Evolution Test) Readily biodegradable
No data available.
EC-50 (Selenastrum capricornutum, 96 h): > 1,000 mg/l NOEC (Selenastrum capricornutum, 96
h): >= 1,000 mg/l
Partition coefficient: noctanol/water : log Pow: 2.92
1.8 mg/l Exposure time: 48 h Test Type: static test
5.4 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Static GLP: yes
4.2 mg/l Exposure time: 96 h Test Type: semi-static test
No data available.
Results of PBT and vPvB assessment : This substance is not considered to be persistent,
bioaccumulating (vPvB).
Biodegradability : Inoculum: activated sludge Concentration: 22 mg/l Result: Readily biodegradable. Biodegradation: 70 % Exposure time: 28 d GLP: yes
(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.
Material Expected to degrade at a moderate rate in air.
Material Potential to bioaccumulate is low
Not expected to demonstrate chronic toxicity to aquatic organisms.
Material Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.
Biodegradation: Material Expected to be inherently biodegradable
Partition coefficient: noctanol/water : log Pow: 2.73
3.78 mg/l Exposure time: 48 h Test Type: Renewal
3.78 mg/l Exposure time: 48 h Test Type: Renewal
3.78 mg/l Exposure time: 48 h Test Type: Renewal 134 mg/l Exposure time: 3 h Test Type: static test
3.78 mg/l Exposure time: 48 h Test Type: Renewal
 3.78 mg/l Exposure time: 48 h Test Type: Renewal 134 mg/l Exposure time: 3 h Test Type: static test 84 mg/l Exposure time: 24 h, Test Type: Static Ecotoxicology Assessment Acute aquatic toxicity : Toxic to aquatic life. Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects. 5.5 mg/l Exposure time: 96 h Test Type: flow-through test
 3.78 mg/l Exposure time: 48 h Test Type: Renewal 134 mg/l Exposure time: 3 h Test Type: static test 84 mg/l Exposure time: 24 h, Test Type: Static Ecotoxicology Assessment Acute aquatic toxicity : Toxic to aquatic life. Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects. 5.5 mg/l Exposure time: 96 h Test Type: flow-through test No data available.
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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 incinerate. 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) : Limited Quantity HAZARDS CLASS : 2.1 UN/NA NUMBER : UN1950 PACKING GROUP : Not Applicable EMERGENCY RESPONSE GUIDE (ERG) : 126

IATA (AIR) DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION) PROPER SHIPPING NAME : Aerosols HAZARDS CLASS : 2.1 UN/NA NUMBER : UN1950 PACKING GROUP : N/A EMERGENCY RESPONSE GUIDE (ERG) : 126

IMDG (OCEAN) PROPER SHIPPING NAME : Aerosols HAZARDS CLASS : 2.1 UN/NA NUMBER : UN1950 PACKING GROUP : N/A EMERGENCY RESPONSE GUIDE (ERG) : 126

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#
Methyl Ethyl Ketone	78-93-3
Acetic acid, methyl ester methyl ,acetate	79-20-9
n-Butyl Acetate	123-86-4
Carbon Black	1333-86-4
Ethylene glycol mono butyl ether	111-76-2
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#
Propane Blend	74-98-6

Acetone	67-64-1
Methyl Ethyl Ketone	78-93-3
Acetic acid, methyl ester methyl ,acetate	79-20-9
Dipropylene Glycol Methyl Ether Acetate	88917-22-0
n-Butyl Acetate	123-86-4

CLEAN AIR ACT :

This product contains:	Chemical CAS#
Diethylene glycol n-butyl ether	112-34-5
Toluene	108-88-3
Formaldehyde	50-00-0
Phenylethane	100-41-4
Benzene	71-43-2
Cumene	98-82-8

INTERNATIONAL REGULATIONS

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

H223
H319
H336

NATIONAL REGULATIONS

Indicates a chemical listed by IARC as a possible carcinogen.

STATE REGULATIONS CALIFORNIA PROPOSITION 65

*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#
Acetone	67-64-1
Methyl Ethyl Ketone	78-93-3
Acetic acid, methyl ester methyl ,acetate	79-20-9
n-Butyl Acetate	123-86-4
Carbon Black	1333-86-4
Methyl Amyl Ketone	110-43-0
Ethylene glycol mono butyl ether	111-76-2
Phenylethane	100-41-4
Benzene	71-43-2
Cumene	98-82-8

Pennsylvania Right to Know

This product contains	Chemical CAS#
Acetone	67-64-1

Methyl Ethyl Ketone	78-93-3
Acetic acid, methyl ester methyl ,acetate	79-20-9
n-Butyl Acetate	123-86-4
Methyl Ethyl Ketoxime	96-29-7
Diethylene glycol n-butyl ether	112-34-5
Carbon Black	1333-86-4
Methyl Amyl Ketone	110-43-0
P.M. Acetate	108-65-6
Ethylene glycol mono butyl ether	111-76-2
Toluene	108-88-3
Phenylethane	100-41-4
Cumene	98-82-8

New Jersey Right to Know

This product contains	Chemical CAS#
Acetone	67-64-1
Methyl Ethyl Ketone	78-93-3
Acetic acid, methyl ester methyl ,acetate	79-20-9
n-Butyl Acetate	123-86-4
Methyl Ethyl Ketoxime	96-29-7
Diethylene glycol n-butyl ether	112-34-5
Carbon Black	1333-86-4
Methyl Amyl Ketone	110-43-0
P.M. Acetate	108-65-6
Ethylene glycol mono butyl ether	111-76-2
Phenylethane	100-41-4
Cumene	98-82-8

16. OTHER INFORMATION

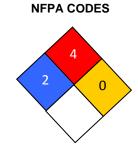
Other Product Information

% Volatile by Volume: 91.83 % Solids by volume: 8.17 % Exempt by Volume: 30.63 % Volatile by Weight: 84.05 % Solids by Weight: 15.95 % Exempt by Weight: 32.63

VOC CONTENT:

Excluding Exempt VOC: 605 Including Exempt VOC: 420

HMIS RATINGHealth :2*Flammability :4Reactivity :0Personal Protection :H



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