SAFETY DATA SHEET



DATE ISSUED : 2/ **SDS REF. No :** 38

2/3/2016 3860-SERIES

3860-SERIES WATERBORNE PRIMER FILLER

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3860-SERIES WATERBORNE PRIMER FILLER

PRODUCT CODE:3860-SERIES**PRODUCT USE:**Industrial Waterborne 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 : WARNING

HAZARD STATEMENTS :

H319 Causes serious eye irritation. H410 Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS :

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

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
Talc	10% - 15%	14807-96-6
Diethylene glycol n-butyl ether	1% - 5%	112-34-5

Ethylene glycol mono butyl ether	1% - 5%	111-76-2
Zinc Oxide	1% - 5%	1314-13-2
Trizinc Bis(Orthophosphate) *2-4 H2O	1% - 5%	7779-90-0

The follow substances may be present in varying quantities depending on color.

Titanium Dioxide	0% - 60%	13463-67-7	
Carbon Black	0% - 40%	1333-86-4	

4. FIRST AID MEASURES

Description of first aid measures.

EYES CONTACT : EYE CONTACT: Moderate irritation, tearing or blurred vision.

SKIN CONTACT : SKIN CONTACT: Moderate irritation possible from prolonged exposure; defatting and dermatitis.

INGESTION : INGESTION: Can cause gastrointestinal irritation, headache, dizziness, nausea and weakness.

INHALATION : INHALATION: May cause nasal irritation, headache, dizziness, nausea, weakness or vomiting. Loss of consciousness.

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 : Foam, alcohol foam, CO2, dry chemical, water fog.

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

Acrylic Acid(79-10-7)				
USA ACGIH	ACGIH (TLV) TWA	2 ppm		
USA NIOSH	NIOSH (REL) TWA	2 ppm, 6 mg/m3		
Acrylonitrile(107-13-1)				
USA ACGIH	ACGIH (TLV) TWA	2 ppm		
USA NIOSH	NIOSH (REL) C	10 ppm		
USA NIOSH	NIOSH (REL) TWA	1 ppm		
Aliphatic Solvent(64742-47-8)				
USA ACGIH	ACGIH (TLV) TWA	200 mg/m3		
USA NIOSH	NIOSH REL (ST)	10 mg/m3		
USA NIOSH	NIOSH REL (TWA)	5 mg/m3		
USA OSHA	OSHA OEL (TLV) TWA Table Z-1	500 ppm, 2,000 mg/m3		
USA OSHA	OSHA OEL Table Z-1	5 mg/m3		
Aluminum Hydroxide(21645-51-2)				
USA ACGIH	ACGIH (TLV) TWA	10 mg/m3 (Total dust), 3 mg/m3 (Respirable fraction)		
USA OSHA	OSHA (PEL) TWA	15 mg/m3 (Tptal dust), 5 mg/m3 (Respirable fraction)		
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		
Diethylene glycol n-butyl ether(112-34-5		515 mg/mo		
USA ACGIH	ACGIH TLV (TWA)	10 ppm		
Ethylene glycol mono butyl ether(111-76				
USA ACGIH	ACGIH TWA (ppm)	20 ppm		
USA NIOSH	NIOSH REL (ppm)	5 ppm		
USA OSHA	OSHA PO TWA (ppm)	25 ppm		
USA OSHA	OSHA TABLE Z-1 TWA (mg/m3)	50 ppm, 240 mg/m3		
Ethylene Glycol(107-21-1)		50 pp, 2 10		
USA ACGIH	ACGIH (C)	100 mg/m3		
USA ACGIH	ACGIH (C) (Aerosol only)	100 mg/m3		
USA OSHA	OSHA PO (TLV-C)	50 ppm, 125 mg/m3		
Isobutyl Alcohol(78-83-1)		00 pp, 220		
USA ACGIH	ACGIH TWA	50 ppm		
USA OSHA	OSHA PEL	100 ppm, 300 mg/m3		
Styrene(100-42-5)	00111122	100 ppini, 500 mg/mb		
USA ACGIH	ACGIH STEL (ppm)	40 ppm		
USA ACGIH	ACGIH TWA (ppm)	20 ppm		
USA OSHA	OSHA TWA (ppm)	100 ppm		
TALC(14807-96-6)		Phil		
USA ACGIH	ACGIH (TLV) TWA	2 mg/m3		
USA NIOSH	NIOSH (REL) TWA	2 mg/m3		
USA OSHA	OSHA (Table Z-3) Mineral Dusts TWA	20 Millon particles per cubic foof		
Titanium Dioxide(13463-67-7)				
PEL (Permissible Exposure Limit)	OSHA TWA	15 mg/m3		
	ACGIH TWA	10 mg/m3		
Zinc Oxide(1314-13-2)				
USA ACGIH	ACGIH (TLV) STEL	10 mg/m3		
USA ACGIH	ACGIH (TLV) TWA	2 mg/m3		
USA NIOSH	NIOSH (REL) C	15 mg/m3		
054 100511				

USA NIOSH	NIOSH (REL) ST	10 mg/m3
USA NIOSH	NIOSH (REL) TWA	5 mg/m3
USA OSHA	OSHA (TWA) Table Z-1	5 mg/m3

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : If TLV of the product or any component is exceeded, a NIOSH approved Air Supplied Respirator is advised in absence of environmental control. OSHA Regulations also permit other NIOSH 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 : Do not get in eyes. Solvent resistant safety eyewear with splash guards or side shields is recommended.

SKIN AND BODY PROTECTION : Prevent repeated or prolonged skin contact with GB Protective Handcream, wear impervious clothing and chemical resistant boots.

WORK HYGIENIC PRACTICES: Remove and wash soiled clothing before reuse. Wash hands with soap and water after handling paint, before eating, using the rest room or smoking.

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	:	226.0 deg F TO 446.0 deg F
Flash point	:	Above 212 deg F
Lower explosion limit	:	.85
Upper explosion limit	:	24.6
Vapor pressure	:	185 mm Hg
Vapor density	:	Heavier than air
Relative density	:	No data available.
Density	:	12.0609
Solubility	:	No data available.
Partion coefficient: n-	:	No data available.
octanol/water		
Autoignition temperature	:	No data available.
Decomposition temperature	:	No data available.

10. STABILITY AND REACTIVITY

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

CHEMICAL STABILITY : Stable.

CONDITIONS TO AVOID : Extremely high temperatures, poor ventilation and excessive aging.

INCOMPATIBLE MATERIALS : Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition may produce carbon dioxide and/or carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acrylic Acid(79-10-7)	
Additional Information	RTECS: AS4375000 burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Liver - Irregularities - Based on Human

	Evidence Liver - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on
	Human Evidence (Mequinol)
Aspiration hazard	No data available.
Carcinogenicity	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Acrylic acid) NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Dermal	No data available.
Germ cell mutagenicity	Laboratory experiments have shown mutagenic effects.
LC50 Inhalation - Rat	>5,100 mg/m3 - 4 h
LD50 Oral - Mouse	830 mg/kg
Reproductive toxicity	No data available.
Respiratory or skin sensitization	Guinea pig Did not cause sensitization on laboratory animals.
Serious eye damage/eye irritation	Eyes - Rabbit Result: Severe eye irritation
Skin corrosion/irritation	Skin - Rabbit Result: Severe skin irritation - 24 h
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation Respiratory system.
Acrylonitrile(107-13-1)	
Additional Information	RTECS: AT5250000 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea Stomach - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence (Mequinol)
Aspiration hazard	No data available.
Carcinogenicity	Possible human carcinogen IARC: 2B - Group 2B: Possibly carcinogenic to humans (Acrylonitrile) NTP: Reasonably anticipated to be a human carcinogen (Acrylonitrile) OSHA: OSHA specifically regulated carcinogen (Acrylonitrile)
Germ cell mutagenicity	No data available.
LD50 Dermal - Rabbit	226.mg/kg
LD50 Inhalation - Rat LD50 Oral - Rat Acute	2.09 mg/l - 4 h, Rat male 81 mg/kg
Toxicity	
Reproductive toxicity	Suspected human reproductive toxicant.
Respiratory or skin	Maximization Test GPMT, Guinea pig Result: May cause sensitization by skin contact. (OECD Test
sensitization Serious eye	Guideline 406) Germ cell mutagenicity Eyes - Rabbit Result: Risk of serious damage to eyes.
damage/eye irritation	Lyes - Rabbit Result. Risk of serious damage to eyes.
Skin	Skin - Rabbit Result: Skin irritation (OECD Test Guideline 404)
corrosion/irritation	
Specific target organ toxicity - repeated	No data available.
exposure Specific target organ	May cause respiratory irritation.
toxicity - single exposure	
Aliphatic Solvent(64742-	-47-8)
Acute Dermal toxicity	No data available.
Acute Inhalation toxicity	No data available.
Acute toxicity	No data available.
Additional Information	RTECS: Not available Prolonged or repeated exposure to skin causes defatting and dermatitis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Aspiration hazard	No data available.
Carcinogenicity	IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Distillates (petroleum), hydrotrated light, kerosene - unspecified) NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Germ cell mutagenicity	Reverse mutation assay S. typhimurium Result: negative
Reproductive toxicity	No data available.

sensitization Eyes - Rabbit Result: No eye irritation damag/eye irritation Skin - Rabbit Result: No skin irritation - 4 h corrosion/irritation No data available. byecht larger organ No data available. toxicity - repeated No data available. corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h corrosion/irritation No data available. corrosion No data available. corrosion No data available. carcinogenicity IARC: Singer organ Adutional Information RFC: SID0940000 Nausea, Vomiting, and Constipation. Aspiration hazard No data available. Carcinogenicity IARC: Ko components of this product present at levels greater than or equal to 0.1% is identified as a longen or potential carcinogen by OSHA. Dermal No data available. Carcinogen of protential carcinogen by OSHA. Dermal = Cart organ No data available. Reproductive toxicity No data available.		
Idamage/ere irritation Skin Skin Skin Corrosion/irritation No data available. Specific target organ No data available. Specific target organ No data available. Specific target organ No data available. Adutional Information RTECS: BD0940000 Nausea, Vorniting, and Constipation. Adutional Information RTECS: BD0940000 Nausea, Vorniting, and Constipation. Adutional Information No data available. Carcinogenicity IAAC: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. ND: No component of this product present at levels greater than or equal to 0.1% is identified as a form or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Dermal No data available. Component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. LDS0 Oral - Rat - female - female - female Female - Acut Evolcity Reproductive toxicity No data available. Serious eye Eyes. Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/irritation No data available. Corosion/irritation	Respiratory or skin sensitization	Draize Test - Guinea pig Result: Does not cause skin sensitization.
Skin Skin - Rabbit Result: No skin irritation - 4 h Specific target organ No data available. toxicity - repeated No data available. exposure No data available. Specific target organ No data available. toxicity - repeated No data available. exposure Specific target organ Aummunitydownation No data available. Additional Information No data available. Additional Information RCC: No components of this product present at levels greater than or equal to 0.1% is identified as a consolute, possible or confirmed human carcinogen by MCGH. ACDI P: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. The P: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. The P: No component of this product present tal evels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. The P: No component of this product present tal evels greater than or equal to 0.1% is identified as available. Germael Mudagenicity Mosel xavailable. Germael Calcute toxicity No data available. Reproductive toxicity No data available. Reproductive roskin Maximization Test (GPMT) - Guinea pig Result. Does not cause skin sensitization.(OEC		Eyes - Rabbit Result: No eye irritation
Specific target organ toxicity - repeated exposure No data available. Specific target organ toxicity - single exposure No data available. Aluminum Hydroxide(21645-51-2) Additional Information Aspiration hazard No data available. Additional Information Aspiration hazard No data available. No data available. Carcinogenicity IARC: No components of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC. ACGH: No component of this product present at levels greater than or equal to 0.1% is identified as a known on attoipated carcinogen by IARC. ACGH: No component of this product present at levels greater than or equal to 0.1% is identified as a known on equal to 0.1% is identified as a known on equal to 0.1% is identified as a carcinogen by DSHA. No component of this product present at levels greater than or equal to 0.1% is identified as a component of this product present at levels greater than or equal to 0.1% is identified as a component of this product present at levels greater than or equal to 0.1% is identified as a component of this product present at levels greater than or equal to 0.1% is identified as a component of this product present at levels greater than or equal to 0.1% is identified as a component set of the set of th		Skin - Rabbit Result: No skin irritation - 4 h
toxicity - repeated Specific target organ No data available. Specific target organ Aduminum Hydroxide(21645-51-2) Adutional Information RECS: B00940000 Nausea, Vomiting, and Constipation. Additional Information Reparation Have Components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or phan or equal to 0.1% is identified as a carcinogen or phan or equal to 0.1% is identified as a carcinogen or phan or equal to 0.1% is identified as a carcinogen or phan or equal to 0.1% is identified as a carcinogen by TRP. OSH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen by OSHA. Dermal No data available. Cerr cell mutagenicity No data available. LDSO Oral - Rat - Space y available. No data available. Reproductive toxicity No data available. Cerr cell mutagenicity Modata available. Reproductive toxicity No data available. Reproductive toxicity No data available. Reparation or skin Skin - Rabbit Result: No eye irritation (OECD Test Guideline 405) Serious eye Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 404) Specific target organ No data available.		
exposite No data available. byspecific target organ toxicity - single exposure No data available. Aluminum Hydroxide(21645-51-2) Additional Information RTECS: B00940000 Nausea, Vomiting, and Constipation. Aspiration hazard No data available. No data available. Carcinogenicity IARC: No components of this product present at levels greater than or equal to 0.1% is identified as a cricinogen or potential carcinogen by CACGH. 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 OSHA. Dermal No data available. No data available. Germ cell mutagenicity Mouse lymphocyte Result: negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhalotion No data available. No data available. Cernal So,000 mg/kg, Oral - Rat - female Respiratory or kin Mouse karaliable. Respiratory or kin Mouse karaliable. Germ cell mutagenicity No data available. Carcinoger or kin Maximization Test (GPMT) - Guinea pig Result- Does not cause skin sensitization. (OECD Test Guideline 405) damage/sye irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation No data available.		No data available.
Specific target organ No data available. toxicity - single Muminum Hydroxide(21645-51-2) Additional Information RTECS: BD0940000 Nausea, Vomiting, and Constipation. Aspiration harad No data available. Carcinogenicity IARC: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACR. ACGLI: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACR. AND the component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACR. AND the component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACR. Germ cell mutagenicity Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhalation No data available. >5,000 mg/kg, Oral - Rat - female Female - Acut toxicity No data available. Respiratory or skin Skin - Rabbit Result: No eye irritation (OECD Test Guideline 405) Serious eye Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 404) Corrosion/irritation Skin - Rabbit Result: No eye irritation (OECD Test Guideline 404) Corrosing/irritation No data available. toxicity - regreated orgran No data available. </td <td></td> <td></td>		
exposure Auminum Hydroxide(21645-51-2) Additional Information RTECS: B00940000 Nausea, Vomiting, and Constipation. Aspiration harad No data available. Carcinogenicity IARC: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. NPT: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. NPT: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. NPT: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. NPT: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. NPT: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGH. Germ cell mutagenicity Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhalation No data available. >5,000 mg/kg, Oral - Rat - female female - faute toxicity Reproductive toxicity No data available. Serious eye Experimetro yres Skin Reproductin Result: No eye irritation (OECD Test Guideline 405) Skin Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/ritation		No data available.
Aluminum Hydroxide(21645-51-2) Additional Information RTESC: B0D940000 Nausea, Vomiting, and Constipation. Aspiration hazard No data available. Carcinogenicity IARC: No components of this product present at levels greater than or equal to 0.1% is identified as a 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 OSHA. Cerrn cell mutagenicity No data available. Dermal No data available. Cerrn cell mutagenicity. Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhalation IND data available. No data available. Reproductive toxicity No data available. Respiratory or skin Maximization Test (GPMT) - Guinea pig Result- Does not cause skin sensitization.(DECD Test sensitization.(DECD Test Guideline 405) Garamage/qey initation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Specific target organ No data available. Noxicological No data available. Specific target organ No data available. Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/irritation Skin - Rabbit Result: No skin irritation oracording to specifications, the product does not have		
Additional Information RTECS: BD0940000 Nausea, Vomiting, and Constipation. Aspiration hazard No data available. Carcinogenicity IARC: No components of this product present at levels greater than or equal to 0.1% is identified as product present at levels greater than or equal to 0.1% is formatic levels greater than or equal to 0.1% is identified as a carcinogen by ACR. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen by ACRI. NCPN to moment of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACRI. NCPN to data available. Dermal No data available. Germ cell mutagenicity. Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhelation Inbalation No data available. LDSO Oral - Rat - >5,000 mg/kg, Oral - Rat - female Reproductive toxicity No data available. Respiratory or skin Guideline 405 Garmagleyey irritation Skin - Rabbit Result: No skin irritation (OECD Test Guideline 405) Garmagleyey irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/irritation No data available. Specific target organ toxicky - single expasure No data available. Specific target organ toxicky - single expasure >		645-51-2)
Aspiration hazard No data available. Carcinogenicity IARC: No components of this product present at levels greater than or equal to 0.1% is identified as a corcinogen or potential carcinogen by ACGIH. NP: No component of this product present at levels greater than or equal to 0.1% is identified as a corcinogen or potential carcinogen by ACGIH. NP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Dermal No data available. Carcinogen or potential carcinogen by OSHA. Germ cell mutagenicity Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhalation No data available. LDS0 Oral - Rat - female >5,000 mg/kg, Oral - Rat - female Female - Action or skin Skin result: No eye irritation (OECD Test Guideline 405) Serious eye Eyes - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/irritation No data available. No data available. No data available. Exposure No data available. Specific target organ toxicly - single No data available. exposure No dat		
identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Dermal No data available. Defmal - Acute toxicity Reproductive toxicity No data available. Serious eve Guideline 406) Skin - Rabbit Result: No eve irritation (OECD Test Guideline 405) damage/eve irritation Skin - Rabbit Result: No eve irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Specific target organ toxicity - repeated exposure Amorphous Silica(7631-66-9) Additional toxicological Information for preparations: When used and handled according to internally approved calculation methods information for preparations: When used and handled according to internally approved calculation methods information for preparations: When used and handled according to internally approved calculation methods any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 403) LDSD - Oral - Rat D40-2000 mg/kg (Rabbit) LDSD - Oral - Rat D40-2000 mg/kg (Rabbi		No data available.
Dermal No data available. Germ cell mutagenicity Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhalation Inbalation No data available. LD50 Oral - Rat - >5,000 mg/kg, Oral - Rat - female female - Acute toxicity Reproductive toxicity No data available. Respiratory or skin Maximization Test (GPMT) - Guinea pig Result- Does not cause skin sensitization.(OECD Test sensitization Guideline 406) Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405) Gamage/eye irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Specific target organ toxicity - single No data available. exposure Amorphous Silica(7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods information for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritato of eyes Not irritating (rabbit) (OCED 404) LD50 - Dermal - Rabbit >5000 mg/kg (Rat) (OECD 404) LD50 - Dermal - Rabbit <td>Carcinogenicity</td> <td>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</td>	Carcinogenicity	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
Germ cell mutagenicity Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative Inhalation No data available. > 5,000 mg/kg, Oral - Rat - female Fernale - Acute toxicity No data available. Reproductive toxicity Reproductive toxicity No data available. Reproductive toxicity Reproductive toxicity No data available. Guideline 406) Serious eye Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405) damage/eye irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Specific target organ No data available. toxicity - repeated exposure Amorphous Silica/f631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product do us. Irritator of skin Not irritating (rabbit) (OCED 403) LD50 - Dermal - Rabbit S000 mg/kg (Rabbit) LD50 - Dermal - Rabbit S000 mg/kg (Rabbit) ECDE 405] LC0 - 10halative Sensitization Not sensitizating (quine	Dermal	
LDS0 Oral - Rat - >5,000 mg/kg, Oral - Rat - female female - Acute toxicity No data available. Reproductive toxicity No data available. Respristory or skin Maximization Test (GPMT) - Guinea pig Result- Does not cause skin sensitization.(OECD Test Guideline 405) Serious eye Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 404) corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Specific target organ toxicity - repeated exposure Specific target organ No data available. toxicity - single exposure Specific target organ No data available. toxicity - single The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritation of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >5000 mg/kg (Rabbit) LD50 - Dermal - Rabbit >5000 mg/kg (Rabbit) (OEED 401) Other information => 1340 mg/kg (day Oral Ad; Adci Cassifiable	Germ cell mutagenicity	Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative
female - Acute toxicity No data available. Respiratory or skin sensitization Maximization Test (GPMT) - Guinea pig Result- Does not cause skin sensitization.(OECD Test Guideline 406) Serious eye Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405) Skin Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Specific target organ toxicity - single No data available. exposure Amorphous Silica(7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritator of skin Not irritating (rabbit) (OCED 404) Irritator of eyes Not irritating (rabbit) (OCED 401) LD50 - Dermal - Rabbit >5000 mg/kg (Rab)t(1) LD50 - Oral - Rat >5000 mg/kg (Rab)t(1) Carcinogenicity CHS- Not carcinagen. Carcinogenicity CHS- Not a available as a Human Carcinogen. Carcinogenicity CHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).		
Respiratory or skin sensitization Maximization Test (GPMT) - Guinea pig Result- Does not cause skin sensitization.(OECD Test Guideline 406) Serious eye damage/eye irritation Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405) Skin Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Specific target organ toxicity - repeated exposure No data available. Amorphous Silica(7631-86-9) Additional toxicological information Attributed toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritatn of skin Not irritating (rabbit) (OCED 404) Irritato of eyes Not irritating (rabbit) (OCED 405) LD50 - Oranal - Rabbit >5000 mg/kg (Rabtit) LD50 - Oranal - Rabbit >5000 mg/kg (Rabtit) Carbon Black(1333-86-4) ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity Classification Not a hazardous substance or preparation according to the Global Harmonized System (GHS). H	female - Acute toxicity	
sensitization Guideline 406) Serious eye Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405) damage/eye irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation No data available. byecific target organ toxicity - repeated No data available. exposure No data available. Specific target organ toxicity - single No data available. exposure Amorphous Silica(7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritatn of skin Not irritating (rabbit) (OCED 404) Irritaton of eyes Not irritating (rabbit) (OCED 403) LD50 - Dermal - Rabbit >5000 mg/kg (Rabit) LD50 - Dermal - Rabti >5000 mg/kg (Rabit) LD50 - Dermal - Rabti >5000 mg/kg (Rabit) Carbon Black(1333-86-4) ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity GHS - Not a hazardous substance or preparation according to the		
Serious eye damage/eye irritation Eyes - Rabbit Result: No eye irritation (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 No data available. Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritatin of skin Not irritating (rabbit) (OCED 404) Ib50 - Dermal - Rabbit D50 - Orral - Rat >5000 mg/kg (Rabit) LD50 - Orral - Rat >5000 mg/kg (Rabit) Other information - Oral => 1340 mg/kg/day AcGIH AcGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity 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 crecent U.S. respiratory morbidity study suggested a 27 mL decline in FEV1 from a 1 mg/m3 (inhalable fraction) epr		
damage/eye irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) corrosion/irritation Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) Specific target organ No data available. toxicity - repeated No data available. exposure No data available. Amorphous Silica(7631-86-9) No data available. Additional toxicological The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritant of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140-2000 mg/m3 / 4 h (Rat) (OECD 403) LD50 - Dermal - Rabbit >5000 mg/kg (Rat) (DECD 401) Other information - => 1340 mg/kg/day Oral Rat Sensitization Not sensitizating (quinea pig) (OCED 406) Carbon Black(1333-86-4) ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity GHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).		
corrosion/irritation Specific target organ toxicity - repeated exposure Specific target organ toxicity - single Specific target organ toxicity - single exposure Amorphous Silica(7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritatn of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140->2000 mg/kg (Rabbit) LD50 - Dermal - Rabbit >5000 mg/kg (Rat) (OECD 401) Other information - => 1340 mg/kg/day Oral => 1340 mg/kg/day Oral AcCIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity 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) ex		
Specific target organ toxicity - repeated exposure No data available. Specific target organ toxicity - single No data available. Amorphous Silica(7631-86-9) No data available. Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritant of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140->2000 mg/kg (Rabbit) LD50 - Dermal - Rabbit >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rab)t(OEED 401) Otral => 1340 mg/kg/day Oral => 1340 mg/kg/day Gardingenicity 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 c		Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
toxicity - repeated exposure Specific target organ toxicity - single Amorphous Silica(7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritatant of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140 cyg(Rabbit) D50 - Dermal - Rabbit >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rab) (OEED 401) Other information - oral => 1340 mg/kg/day Oral Sensitization Not sensitizating (guinea pig) (OCED 406) Carcinogenicity 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 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		No data available.
Specific target organ toxicity - single No data available. Amorphous Silica(7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritatin of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140->2000 mg/kg (Rabbit) LD50 - Dermal - Rabbit >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rab) (OECD 401) Other information - Oral => 1340 mg/kg/day Oral Rat >5000 mg/kg (Rabit) LDS0 - Oral - Rat >5000 mg/kg (Rab) (OECD 406) Carbon Black(1333-86-4) AcGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity GHS Not a hazardous substance or preparation according to the Global Harmonized System (BHS). 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.	toxicity - repeated	
toxicity - single exposure Amorphous Silica/7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritatant of eyes Not irritating (rabbit) (OCED 405) LD50 - Inhalative >140->2000 mg/m3 / 4 h (Rat) (OCED 403) LD50 - Oral - Rat >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rat) (OEED 401) Other information - Oral => 1340 mg/kg/day Sensitization Not sensitizating (guinea pig) (OCED 406) Carcinogenicity 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 overking-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		
Amorphous Silica(7631-86-9) Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritatine (rabbit) Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140->2000 mg/kg (Rat) (OCED 403) LD50 - Dermal - Rabbit >5000 mg/kg (Rat) (OECD 401) Otral => 1340 mg/kg/day Oral => 1340 mg/kg/day Garlon Black(1333-86-4) ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity 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 sym	toxicity - single	No data available.
Additional toxicological information The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us. Irritant of skin Not irritating (rabbit) (OCED 404) Irritation > 140->2000 mg/m3 / 4 h (Rat) (OCED 403) LD50 - Dermal - Rabbit > 5000 mg/kg (Rabbit) LD50 - Oral - Rat > 5000 mg/kg (Rab) (OECD 401) Other information - Oral => 1340 mg/kg/day Sensitization Not sensitizating (guinea pig) (OCED 406) Carcinogenicity 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 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 bronchitits. In the		86-9)
any harmful effects according to our experience and information provided to us. Irritation of skin Not irritating (rabbit) (OCED 404) Irritatant of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140->2000 mg/m3 / 4 h (Rat) (OCED 403) LD50 - Dermal - Rabbit >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rat) (OECD 401) Other information - Oral => 1340 mg/kg/day Sensitization Not sensitizating (guinea pig) (OCED 406) Carbon Black(1333-86-4) ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity 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 sympto		
Irritatant of eyes Not irritating (rabbit) (OCED 405) LC0 - Inhalative >140->2000 mg/m3 / 4 h (Rat) (OCED 403) LD50 - Dermal - Rabbit >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rabit) (OECD 401) Other information - => 1340 mg/kg/day Oral => 1340 mg/kg/day Sensitization Not sensitizating (guinea pig) (OCED 406) Carbon Black(1333-86-4) ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity 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 FV1. 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	information	
LC0 - Inhalative >140->2000 mg/m3 / 4 h (Rat) (OCED 403) LD50 - Dermal - Rabbit >5000 mg/kg (Rabbit) LD50 - Oral - Rat >5000 mg/kg (Rat) (OECD 401) Other information - Oral => 1340 mg/kg/day Sensitization Not sensitizating (guinea pig) (OCED 406) Carbon Black(1333-86-4) 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	Irritant of skin	Not irritating (rabbit) (OCED 404)
LD50 - Dermal - Rabbit >5000 mg/kg (Rabit) LD50 - Oral - Rat >5000 mg/kg (Rat) (OECD 401) Other information - => 1340 mg/kg/day Oral => 1340 mg/kg/day Oral => 1340 mg/kg/day Carbon Black(1333-86-4) ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity 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		
LD50 - Oral - Rat >5000 mg/kg (Rat) (OECD 401) Other information - => 1340 mg/kg/day Oral Sensitization Not sensitizating (guinea pig) (OCED 406) 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 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		
Other information - Oral => 1340 mg/kg/day Sensitization Not sensitizating (guinea pig) (OCED 406) Carbon Black(1333-86-4) 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		
Sensitization Not sensitizating (guinea pig) (OCED 406) Carbon Black(1333-86-4) ACGIH ACGIH ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen. Carcinogenicity 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	Other information -	
Carbon Black(1333-86-4)ACGIHACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.Carcinogenicity ClassificationGHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).Human EpidemiologyResults 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		Not consitizating (quipos pig) (OCED 406)
ACGIHACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.Carcinogenicity ClassificationGHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).Human EpidemiologyResults 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		
Carcinogenicity ClassificationGHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).Human EpidemiologyResults 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		ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as
Classification(GHS).Human EpidemiologyResults 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		
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	Classification	(GHS).
European study, methodological limitations in the administration of the questionnaire limit the	Human Epidemiology	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
Human Epidemiology - Since this IARC evaluation of carbon black, Sorahan and Harrington 16) re-analyzed the UK	Human Epidemiology -	drawing of definitive conclusions about symptoms.

cont	study data using an alternative exposure hypothesis and found a positive association with 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 - cont.	Morfeld and McCunney 19) applied a Bayesian approach to unravel the role of uncontrolled 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 - cont.	This study, however, indicated a link between carbon black and small opacities on chest films, 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).
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 Germ Cell Mutagenicity	In an experimental investigation, mutational changes in the hprt gene were reported in alveolar 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 bioavailable.
NIOSH	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), the U.S. Occupational Safety and Health Administration (OSHA) or the European Union (EU).
Reproductive and Teratogenic Effects	No experimental studies on effects of carbon black on fertility and reproduction have been 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 STOT- repeated	No animal data is available. No cases in humans have been reported. Therefore, no STOT, Repeated exposure classification is made.
exposure	
STOT- single exposure Diethylene glycol n-buty	Inhalation studies with the rat showed lung effects (see Section 11.2 and 11.3), these effects 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
Additional Information	Repeated 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	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 carcinogen or potential control 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.
Inhalation	The LC50 has not be determined.
LD Dermal - Rabbit	2,764 mg/m3
LD50 Oral - Mouse- male	2,410 mg/m3
LD50 Oral - Rat - male	3,305 mg/kg
Repeated Dose Toxicity Reproductive toxicity	In animals, effects have been reported on the following organs: Blood. kidney. Liver In animals studies, did not interfere with reproduction. However, body weights of newborn animals were decreased.
Respiratory or skin sensitization	Maximization Test GPMT, Guinea pig Result: Does not cause skin sensitization. (OECD Test Guideline 406)
Serious eye damage/eye irritation	May cause severe eye irritation. May cause slight corneal injury.
Skin corrosion/irritation	Skin - Rabbit Result: Mild skin irritation - 1 h (OECD Test Guideline 404)
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Ethylene glycol mono bu	ityl ether(111-76-2)
Aspiration toxicity	Remarks: No data available.
Carcinogenicity	Species mouse, Application Route: Inhalation, Exposure time 2 yr, Activity duration: 6 h, Frequency of Treatment: 5 days/week, NAOEL: 125 ppm Result: Limited evidence of carcinogenic effects with no relevance to humans., Carcinogenicity-Assement: Not evidence of carcinogenicity in animal studies
Further information	Product Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.,
Germ cell mutagenicity	Genotoxicity in vitro: Test Type: Mammalian cell gene mutation assay; Test species: Chinese hamster (CHO), Metabolic activation: with and without metabolic activation. Result: negative., Genotoxicity in vivo: Test Type: In vivo micronucleus test., Test species:: mouse (male), application Route: Intraperitoneal, Result: negative., Germ cell mutagenicity Assessment: Tests on bacterial or mammalian did not show mutagenic effects.
LC50 (rat) inhalation	Acute inhalation toxicity: 500 ppm, Exposure time: 4 h; Assessment: the component/mixture is moderately toxic after short term inhalation.
LC50 (rat) Oral	Acute toxicity estimate: 500 mg/kg; Method: Expert judgment.; Assessment: the component/mixture is moderately toxic after single ingestion.
LD50 (rat) dermal	Acute toxicity estimate: 1,1000 mg/kg; Method: Expert judgment; Assessment: the component/mixture is moderately toxic after single contact with skin.
Repeated dose toxicity	Species: rat NOAEL: 30, Application Route: Inhalation Exposure time: 14 wk Number of exposures: 6 h/d, 5 d/wk.
Reproductive toxicity	Effects on fertility : Test Type: Two-generation study Species: mouse Application Route: oral Fertility: NOAEL: 720 mg/kg body weight Symptoms: Reduced fertility Result: Reduced fertility at maternally toxic doses Effects on fetal development : Test Type: Embryo-fetal development Species: rat Application Route: Inhalation Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day Developmental Toxicity: Lowest observed adverse effect level: 100 ppm Result: Developmental toxicity occurred at maternal toxicity dose levels Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments
Respiratory or skin sensitsation	Test Type: Maximization test, Species guinea pig, Result: Did not cause sensitization on laboratory animals.
Serious eye damage/ eye irritation	Species rabbit, Exposure time 24 h, Result: Irritating to eyes.
Skin corrosion/irritation	Remarks: Moderate skin irritation in susceptible persons., Species rabbit, Exposure time 24 h, Result: Mild skin irritation
STOT - repeated exposure	No data available.
STOT - single exposure	No data available.
Ethylene Glycol(107-21-	1)

Aspiration hazard	No aspiration toxicity classification.
Carcinogenicity	Species: mouse, (male, female), Application Route: Oral, Exposure time: 24 months, Dose: 0, 40, 200, 1000 mg/kg, daily, LOAEL: 1,000 mg/kg, Result: Ambiguous., Carcinogenicity -
	Assessment: Not classified as a human carcinogen.
Further information	Remarks: No data available.
Germ cell mutagenicity	Test Type: Ames test, Metabolic activation: with and without activation, Method OECD Test Guideline 471, Result: negative, GLP: yes.
LC50 Inhalation	>2.5 mg/l, Exposure time: 6 h, Test atmosphere: dust/mist. Assessment: The substance or
Toxicity - (Rat) LD50 Dermal Toxicity	mixture has no acute inhalation toxicity. >3,500 mg/kg, Assessment: The substance or mixture has no acute dermal toxicity.
(Mouse)	2,300 mg/kg, Assessment. The substance of mixture has no acute definal toxicity.
LD50 Oral - Rat Acute toxicity	2,000 mg/kg, Assement: This component/mixture is moderately toxic after single ingestion.
Reproductive toxicity	Results: No reproductive effects.
Respiratory or skin sensitization	Test Type: Maximization Test (GPMT), Species: guinea pig, Result: Did not cause sensitsation on laboratory animals.
Serious eye	Species: rabbit, Result: No eye irritation, Exposure time 24 h, Method: In vivo.
damage/eye irritation	Chin Dahlit Daavit Everanna times 20 h. Mathada Tarvius, Daavit, Na shin imitation
Skin corrosion/irritation	Skin - Rabbit Result, Exposure time: 20 h, Method: In vivo, Result: No skin irritation.
Specific target organ toxicity - repeated exposure	Oral - May cause damage to organs through prolonged or repeated exposure Kidney
Specific target organ	No data available.
toxicity - single exposure	
Isobutyl Alcohol(78-83-1	.)
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classified as carcinogenic by ACGIH, IARC, OSHA or NTP.
LC50 Inhalation - Rat	8000 ppm; (4 h)
LD50 Dermal - Rabbit	3400 mg/kg
LD50 Oral - Rat (Acute Toxicity)	2460 mg/kg
Mutagenicity Data:	No adverse mutagenicity effects are anticipated.
Reproductive Data:	No adverse reproductive effects are anticipated. None known.
Respiratory / Skin Sensitization Data:	None known.
Synergistic Materials:	Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide.
Tetragenicity Data:	No adverse Tetragenicity effects are anticipated.
Magnesite(546-93-0)	
Information regarding	No data available.
toxicological effects	
Styrene(100-42-5) Irritation / corrosion -	Cresies Dahlik Desult an imitaat Method DACE Test
Eye	Species: Rabbit; Result: non-irritant; Method: BASF - Test
Irritation / corrosion - Sensitization	Species: Guinea pig; Result: non-sensitization; Method: OECD Guideline 406.
Irritation / corrosion - Skin	Species: Rabbit; Result: non-irritant; Method: BASF - Test
LC50 Dermal - Rat	Not determined
LC50 Inhalation - Rat	Exposure time 4 h ; not determined
LD50 Oral - Rat	>5,000 mg/kg
TALC(14807-96-6)	
Acute toxicity - Dermal	No data available.
Acute toxicity - Inhalation	No data available.
Additional Information	RTECS: WW2710000 Prolonged inhalation of crystalline silica may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis. In advanced stages, loss of appetite, pleuritic pain, and total incapacity to work. Advanced silicosis may result in death due to cardiac failure or destruction of lung tissue. Crystalline silica is classified as group 1 "known to be carcinogenic to humans" by IARC and "sufficient evidence" of carcinogenicity by the NTP. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidence Liver - Irregularities

Aspiration hazard	No data available.
Carcinogenicity	Carcinogenicity - Rat - Inhalation Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. IARC: 1 - Group 1: Carcinogenic to humans (Quartz) IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrous magnesium silicate) 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrous magnesium silicate) NTP: Known to be human carcinogen (Quartz) OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential
	carcinogen by OSHA.
Germ cell mutagenicity	No data available.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	No data available.
Skin corrosion/irritation	Skin - Human Result: Mild skin irritation - 3 h
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Titanium Dioxide(13463-	-67-7)
Carcinogenicity	In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50, 250 mg/m3 of respirable Ti02.
Dermal ALD (rabbit)	>10000 mg/m3
Eye irritation	slight irritation
Inhalation 4 h ALC	>6.82 mg/l
ORAL ALD (rat)	>2400 mg/kg
Sensitsation	Did not cause sensitsation on laboratory animals.
Skin irritation	slight irritation
Additional Information	ate) *2-4 H2O(7779-90-0) RTECS: TD0590000 To the best of our knowledge, the chemical, physical, and toxicological
Additional Information Aspiration hazard	properties have not been thoroughly investigated.
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 this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Dermal	No data available.
Germ cell mutagenicity	No data available.
Inhalation	No data available.
LD50 Intraperitoneal - Mouse	552 mg/kg, Remarks: Lungs, Thorax, or Respiration: Other changes.
LD50 Oral - Rat - Acute toxicity	>5,000 mg/kg, (OECD Test Guideline 401)
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation - 72 h (OECD Test Guideline 405)
Skin corrosion/irritation	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Zinc Oxide(1314-13-2)	
Carcinogenicity	No data available.
Dermal	No data available.
LC50 Inhalation - Mouse	2,500 mg/m3, Mouse
LD50 Oral - Mouse - Acute toxicity	7,950 mg/kg, Oral - Mouse

Mutagenicity	No data available.
Reproductive toxicity	No data available.
Serious eye damage/eye irritation	No data available.
Skin corrosion/irritation	No data available.
Teratogenicity	No data available.

12. ECOLOGICAL INFORMATION

Acrylic Acid(79-10-7)	
Bioaccumulative potential	No data available.
EC50 Toxicity to algae	0.04 mg/l - 96 h, Desmodesmus subspicatus (green algae)
- Desmodesmus	
subspicatus	
EC50 Toxicity to	95 mg/l - 48 h, Daphnia magna (Water flea)
daphnia and other	
aquatic invertebrates -	
Daphnia magna	
LC50 Toxicity to fish -	27 mg/l - 96 h, Oncorhynchus mykiss (rainbow trout)
Oncorhynchus mykiss	
Mobility in soil	No data available.
Other adverse effects	Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.
Persistence and	Biodegradability Biotic/Aerobic - Exposure time 28 d Result: 100 % - Readily biodegradable
degradability	
Results of PBT and	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
vPvB assessment	,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,
Acrylonitrile(107-13-1)	
Bioaccumulative	Bioaccumulation Lepomis macrochirus - 14 d - 9.94 µg/l Bioconcentration factor (BCF): 48
potential	
EC50 Toxicity to	7.4 - 10.0 mg/l - 48 h, Daphnia magna (Water flea)
daphnia and other	
aquatic invertebrates -	
Daphnia magna	
Mobility in soil	No data available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
	Toxic to aquatic life with long lasting effects.
Persistence and	Biodegradability Biotic/Aerobic - Exposure time 28 d
degradability	
Results of PBT and	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
vPvB assessment	
Aliphatic Solvent(64742-	
Bioaccumulative	No data available.
potential	1.4 mg/L 40 h Danhais magna (Wahay flag) (OECD Task Guideling 202)
EC50 (Daphnia Magna) Toxicity to daphnia and	1.4 mg/l - 48 h, - Daphnia magna (Water flea), (OECD Test Guideline 202)
other aquatic	
invertebrates	
LC50 (Rainbow trout)	2.9 mg/l - 96 h, Oncorhynchus 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.
	Toxic to aquatic life. No data available.
Persistence and	No data available.
degradability	
Results of PBT and	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
vPvB assessment	
Aluminum Hydroxide(21	645-51-2)
Bioaccumulative	Inert material.
potential	
EC50 - Daphnia -	>10,000 mg/l, Daphnia magna (Water flea) (OECD Test Guideline 202)
Toxicity to daphnia and	
other aquatic	
invertebrates	
EC50 - Fish - Toxicity	>10,000 mg/l, Fish
ro fish	

Mobility in soil	Inert material.
NOEC - Toxicity to	>0.004 mg/l, 72 h, Pseudokirchneriella subcapitata (algae) - (OECD Test Guideline 201)
algae	
Other adverse effects	None known.
Persistence and	Non-degradable
degradability Amorphous Silica(7631-	86-0)
Additional ecological	General notes: Do not allow product to reach ground water, water course or sewage system.
information	
Bioaccumulative	No further revelent information available.
potential	
EC50 - Algae	>10000 mg/l (Scenedesmus subspicatus) (72 h) (OCED 201) comparable substance
EC50 - Daphnia magna	>1000 mg/l (Daphnia magna) (24 h) (OCED 202)
LCO - Zebra fish	10000 mg/l (zebra fish) (96 h) (static) (OCED203) No further revelent information available.
Mobility in soil Persistence and	The product is chemically and biologically inert. By the insolubility in water there is a seperstion
degrability	at every filtration and sedimentation process.
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 > 10,000 mg/L, OECD (Guideline 201)
EC50 (Scenedesmus subspicatus)	> 10,000 mg/L, OECD (Guideline 201)
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
LC50 Brachydanio reio	environment. >1000 mg/l (96 h) OECD (Guideline 203)
(zebrafish)	
NOEC 50	> 10,000 mg/L, OECD (Guideline 201)
(Scenedesmus	
subspicatus)	
subspicatus) Diethylene glycol n-buty	
subspicatus) Diethylene glycol n-buty 12.6 Other adverse	l ether(112-34-5) No data available.
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects	No data available.
subspicatus) Diethylene glycol n-buty 12.6 Other adverse	
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative	No data available.
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and other aquatic	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and other aquatic invertebrates	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.)
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and other aquatic invertebrates EC50 Desmodesmus	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and other aquatic invertebrates EC50 Desmodesmus subspicatus - Toxicity	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.)
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and other aquatic invertebrates EC50 Desmodesmus subspicatus - Toxicity of algae LC50 Lepomis	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and other aquatic invertebrates EC50 Desmodesmus subspicatus - Toxicity of algae LC50 Lepomis macrochirus - Toxicity	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test Guideline 201)
subspicatus) Diethylene glycol n-buty 12.6 Other adverse effects Bioaccumulative potential EC50 Daphnia magna - Toxicity to daphnia and other aquatic invertebrates EC50 Desmodesmus subspicatus - Toxicity of algae LC50 Lepomis macrochirus - Toxicity to fish	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicityto fishLC50 Pseudomonas	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test Guideline 201)
subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicityto fishLC50 Pseudomonasputida - Toxicity to	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicityto fishLC50 Pseudomonasputida - Toxicity tobacteria	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicityto fishLC50 Pseudomonasputida - Toxicity to	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobishLC50 Pseudomonasputida - Toxicity tobacteriaMobility in soilPersistence anddegradability	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono but	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity toto fishLC50 Pseudomonasputida - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulative	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulativepotential	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity toto fishLC50 Pseudomonasputida - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulative	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulativepotentialEC50 (Algae)	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulativepotential	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test Guideline 201) 1,300 mg/l - 96 h - Lepomis macrochirus (OECD Test Guideline 203) 1170 mg/l - 16 h - Pseudomonas putida Poteitional for mobility in soil very high (koc between 0 and 50). Biodegradability aerobic - Exposure time 28 d Result: 91.7 % - Readily biodegradable (OECD Test Guideline 301B) tyl ether(111-76-2) Partition coefficient: n-octanol/water: log Pow: 0.83 911 mg/l End point: Biomass Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: no 1,800 mg/l(48 h; Daphnia magna (Water flea)): Exposure time: 48 h Test Type: static test
subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulativepotentialEC50 (Algae)	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3).
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulativepotentialEC50 (Daphnia)LC50 (fish)	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test Guideline 201) 1,300 mg/l - 96 h - Lepomis macrochirus (OECD Test Guideline 203) 1170 mg/l - 16 h - Pseudomonas putida Poteitional for mobility in soil very high (koc between 0 and 50). Biodegradability aerobic - Exposure time 28 d Result: 91.7 % - Readily biodegradable (OECD Test Guideline 301B) tyl ether(111-76-2) Partition coefficient: n-octanol/water: log Pow: 0.83 911 mg/l End point: Biomass Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: no 1,474 mg/l Pimephales promelas (Fathead minnow))Exposure time: 96 h Test Type: static test, Method: OECD Test Guideline 203 GLP: no
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulativepotentialEC50 (Daphnia)LC50 (fish)Mobility in soil	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test Guideline 201) 1,300 mg/l - 96 h - Lepomis macrochirus (OECD Test Guideline 203) 1170 mg/l - 16 h - Pseudomonas putida Poteitional for mobility in soil very high (koc between 0 and 50). Biodegradability aerobic - Exposure time 28 d Result: 91.7 % - Readily biodegradable (OECD Test Guideline 301B) tyl ether(111-76-2) Partition coefficient: n-octanol/water: log Pow: 0.83 911 mg/l End point: Biomass Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: no 1,800 mg/l(48 h; Daphnia magna (Water flea)): Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 203 GLP: no 1,474 mg/l Pimephales promelas (Fathead minnow))Exposure time: 96 h Test Type: static test, Method: OECD Test Guideline 203 GLP: no 1,474 mg/l Pimephales promelas (Fathead minnow))Exposure time: 96 h Test Type: static test, Method: OECD Test Guideline 203 GLP: no 1,474 mg/l Pimephales promelas (Fathead minnow))Exposure time: 96 h Test Type: static test, Method: OECD Test Guideline 203 GLP: no
Subspicatus)Diethylene glycol n-buty12.6 Other adverseeffectsBioaccumulativepotentialEC50 Daphnia magna -Toxicity to daphnia andother aquaticinvertebratesEC50 Desmodesmussubspicatus - Toxicityof algaeLC50 Lepomismacrochirus - Toxicity tobacteriaMobility in soilPersistence anddegradabilityEthylene glycol mono buBioaccumulativepotentialEC50 (Daphnia)LC50 (fish)	No data available. Bioconcentration poteitional is low (BCF <100 or Log Pow <3). >100 mg/l - 48 h - Daphnia magna (Water flea), (Directive 67/548/EEC, Annex V, C.2.) 100 mg/l - 96 h - Desmodesmus subspicatus (Scenedesmus subspicatus) - (OECD Test Guideline 201) 1,300 mg/l - 96 h - Lepomis macrochirus (OECD Test Guideline 203) 1170 mg/l - 16 h - Pseudomonas putida Poteitional for mobility in soil very high (koc between 0 and 50). Biodegradability aerobic - Exposure time 28 d Result: 91.7 % - Readily biodegradable (OECD Test Guideline 301B) tyl ether(111-76-2) Partition coefficient: n-octanol/water: log Pow: 0.83 911 mg/l End point: Biomass Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: no 1,474 mg/l Pimephales promelas (Fathead minnow))Exposure time: 96 h Test Type: static test, Method: OECD Test Guideline 203 GLP: no

degradability	biodegradable. Biodegradation: 90.4 % Exposure time: 28 d Method: OECD Test Guideline 301B
- ,	GLP: no
Product	Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances:
Ethylene Glycol(107-21-	
LC50 Toxicity to	>100 mg/l (Daphnia magna (water flea)), Exposure time 48 h, Test type: static test, Method:
daphnia and other	OECD Test Guideline 202, GLP: yes.
aquatic invertebrates	
LC50 Toxicity to fish	100 mg/l (Pimephales promelas (fathead minnow)): Exposure time: 96 h, Test Type: static test
Mobility in soil	No data available.
Other adverse effects	No data available.
Persistence and degradability	Aerobic, Inoculum: Activated sludge, domestic, adaption not specified, Biodegradation: 90- 100%, Exposure time 10 d, GLP: yes, Remarks: Readily biodegradable.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available
Toxicity to Algae	>100 mg/l (Pseudokirchneriella subcapitata (Selenastrum capricornutum)), Exposure time 96 h, Test type: static test.
Toxicity to Bacteria	>10,000 mg/l, Exposure time: 16 h, Test type: Static, Method: DIN 38412.
Isobutyl Alcohol(78-83-1	
Chronic	No data available.
Degradability /	Evaluation: Not readily biodegradable (by OECD criteria).
Persistence; Biological	Evaluation. Not readily blocgraduble (by OLCB chiefid).
/ A biological	
Degradation	
EC50 - Aquatic Plants	>100 mg/l (72 h) The product has not been tested. The statement has been derived from
EC50 - Daphnia - Acute	properties of the individual components. >100 mg/l (48 h) The product has not been tested. The statement has been derived from
	properties of the individual components.
LC50 - Fish - Acute	>100 mg/l (96 h) The product has not been tested. The statement has been derived from
Mieroeropieroe	properties of the individual components. Toxicity to microorganisms: bacteria EC10 (17 h): >750 mg/l. The product has not been tested.
Microorganisms	The statement has been derived from properties of the individual components.
Magnesite(546-93-0)	
Ecological toxicity	No data available.
Styrene(100-42-5)	
Bioaccumulation	At present state of knowledge, no negative ecological effects are expected.
Chronic	No data available regarding toxicity to Daphnis.
Chronic	No data available regarding toxicity to fish.
EC50 (Algae)	(72 h); No data available concerning toxicity for algae.
EC50 (Daphnia) Acute	(48 h) No data available regarding toxicity to daphnia.
LC50 Fish (Leuciscus	>100 mg/l (96 h)
idus) Acute	
Microorganisms	Toxicity to microorganisms: The inhibition of the degredation activity sludge is not anticated
5	when introduced to biological treatment plants in appropriate low conceratrations.
TALC(14807-96-6)	
Bioaccumulative	No data available.
potential Malailita in anil	
Mobility in soil	No data available.
Other adverse effects	No data available.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Toxicity	No data available.
Titanium Dioxide(13463-	
LC50 fish	Fathead minnow 96 h >1000 mg/l
	ate) *2-4 H2O(7779-90-0)
Bioaccumulative	No data available.
Dioaccumulduve	
potential	
potential LC50 - Oncorhynchus mykiss - Toxicity to	0.09 mg/l - 96 h, Oncorhynchus mykiss (rainbow trout)
LC50 - Oncorhynchus mykiss - Toxicity to fish	
LC50 - Oncorhynchus mykiss - Toxicity to fish Mobility in soil	No data available.
LC50 - Oncorhynchus mykiss - Toxicity to fish	No data available. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
LC50 - Oncorhynchus mykiss - Toxicity to fish Mobility in soil Other adverse effects Persistence and	No data available.
LC50 - Oncorhynchus mykiss - Toxicity to fish Mobility in soil Other adverse effects Persistence and degradability	No data available. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects. No data available.
LC50 - Oncorhynchus mykiss - Toxicity to fish Mobility in soil Other adverse effects Persistence and	No data available. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal Very toxic to aquatic life with long lasting effects.

Zinc Oxide(1314-13-2)	
EC50 Algae -	0.042 mg/l Fresh water, 72 h, Algae - Pseudokirchneriella subcapitata
Pseudokirchneriella	
subcapitata - Toxicity	
to	
LC50 Daphnia magna (Water flea) - Toxicity	98 ug/l, Fresh water, 48 h, Daphnia magna (Water flea)
to daphnia and other	
aquatic invertebrates	
LC50 Oncorhynchus	1.1 to 2.5 ppm, Fresh water, 96 h, Oncorhynchus mykiss (rainbow trout)
mykiss (rainbow trout)	
Other adverse effects	Very toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and	No data available.
degradability	

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

GENERAL INFORMATION : No data available.

DISPOSAL METHOD: Recycle whenever possible or destroy by liquid incineration in accordance with applicable regulations. Contaminated absorbent should be incinerated or sent to an approved landfill in accordance with Local, State, and Federal Regulations.

14. TRANSPORT INFORMATION

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

USDOT GROUND DOT (DEPARTMENT OF TRANSPORTATION) PROPER SHIPPING NAME (DOT) : Not Regulated By D.O.T., 49 CFR HAZARDS CLASS : Not Applicable UN/NA NUMBER : Not Applicable PACKING GROUP : Not Applicable EMERGENCY RESPONSE GUIDE (ERG) : Not Applicable

IATA (AIR) DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION) PROPER SHIPPING NAME : IATA, Not Applicable HAZARDS CLASS : Not Applicable UN/NA NUMBER : Not Applicable PACKING GROUP : Not Applicable EMERGENCY RESPONSE GUIDE (ERG) : Not Applicable

IMDG (OCEAN) PROPER SHIPPING NAME : IMDG, Not Applicable HAZARDS CLASS : Not Applicable UN/NA NUMBER : Not Applicable PACKING GROUP : Not Applicable EMERGENCY RESPONSE GUIDE (ERG) : Not Applicable

MARINE POLLUTANT : Yes SPECIAL PRECAUTIONS : P403 Store in a well-ventilated place. 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#
Ethylene glycol mono butyl ether	111-76-2

Ethylene Glycol	107-21-1
Carbon Black	1333-86-4
Isobutyl Alcohol	78-83-1

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#
Talc	14807-96-6
Titanium Dioxide	13463-67-7
Diethylene glycol n-butyl ether	112-34-5
Ethylene glycol mono butyl ether	111-76-2
Zinc Oxide	1314-13-2
Trizinc Bis(Orthophosphate) *2-4 H2O	7779-90-0
Carbon Black	1333-86-4

CLEAN AIR ACT :

This product contains:	Chemical CAS#
Diethylene glycol n-butyl ether	112-34-5
Ethylene Glycol	107-21-1
Styrene	100-42-5
Acrylic Acid	79-10-7

INTERNATIONAL REGULATIONS

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

Eye Irrit. 2	H319
Acute Tox. Inhal.	H332
Acute Aquatic Tox. 1	H410

NATIONAL REGULATIONS

This product contains:	Chemical CAS#
#Titanium Dioxide	13463-67-7
#Carbon Black	1333-86-4

Indicates a chemical listed by IARC as a possible carcinogen.

STATE REGULATIONS CALIFORNIA PROPOSITION 65

This product contains:	Chemical CAS#	
*Talc	14807-96-6	
*Aliphatic Solvent	64742-47-8	
*Acrylonitrile	107-13-1	

*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#
Talc	14807-96-6
Ethylene glycol mono butyl ether	111-76-2
Zinc Oxide	1314-13-2
Ethylene Glycol	107-21-1
Carbon Black	1333-86-4
Aliphatic Solvent	64742-47-8
Ammonium Benzoate	1863-63-4
Isobutyl Alcohol	78-83-1
Acrylic Acid	79-10-7
Acrylonitrile	107-13-1

Pennsylvania Right to Know

This product contains	Chemical CAS#
Water	7732-18-5
Talc	14807-96-6
Titanium Dioxide	13463-67-7
Diethylene glycol n-butyl ether	112-34-5
Ethylene glycol mono butyl ether	111-76-2
Zinc Oxide	1314-13-2
Trizinc Bis(Orthophosphate) *2-4 H2O	7779-90-0
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Ethylene Glycol	107-21-1
1-Phenoxy-2-Propanol	770-35-4
Carbon Black	1333-86-4
Aliphatic Solvent	64742-47-8
Magnesite	546-93-0
Ammonium Benzoate	1863-63-4
Isobutyl Alcohol	78-83-1
Acrylic Acid	79-10-7
Acrylonitrile	107-13-1

New Jersey Right to Know

This product contains	Chemical CAS#
Water	7732-18-5
Talc	14807-96-6
Titanium Dioxide	13463-67-7
Diethylene glycol n-butyl ether	112-34-5
Ethylene glycol mono butyl ether	111-76-2
Zinc Oxide	1314-13-2
Trizinc Bis(Orthophosphate) *2-4 H2O	7779-90-0
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Ethylene Glycol	107-21-1

1-Phenoxy-2-Propanol	770-35-4
Carbon Black	1333-86-4
Aliphatic Solvent	64742-47-8
Magnesite	546-93-0
Isobutyl Alcohol	78-83-1
Acrylic Acid	79-10-7
Acrylonitrile	107-13-1

16. OTHER INFORMATION

Other Product Information

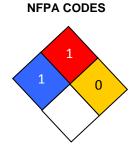
% Volatile by Volume: 58.95 % Solids by volume: 41.05 % Exempt by Volume: 46.85 % Volatile by Weight: 40.10 % Solids by Weight: 59.90 % Exempt by Weight: 32.32

VOC CONTENT:

Excluding Exempt VOC: 212 Including Exempt VOC: 112

HMIS RATING

Health :	1
Flammability :	1
Reactivity :	0
Personal Protection :	F



MANUFACTURER DISCLAIMER : The information contained in this Safety Data Sheet is considered to be true and accurate. Cardinal Industrial Finishes makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. This data is offered solely for the user's consideration, investigation and verification.