SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier	
Product name	: MIL-DTL-11195H Type II Fast Dry Lusterless Enamel 3.5 VOC Black 37038 Q2059
Product code	: F93BL350
1.2 Relevant identified us	ses of the substance or mixture and uses advised against
Material uses	: Paint or paint related material.

: Industrial use only.

1.3 Details of the supplier of the safety data sheet

Mfg. in U.S.A and exported by: The Sherwin-Williams Company 101 Prospect Avenue N.W. Cleveland, OH 44115

EU Only Representative: Vals	spar B.V.
Zuiveringweg 89	
8243 PE Lelystad	
P.O. Box 2139	
The Netherlands	
Phone: +31 (0)320 29 22 00	
e-mail address of person responsible for this SDS	: sds@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Center			
: +431 406 43 43			
: +1 703-741-5970			
: Emergency contact available 24 hours a day			

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Product definition : Mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] Flam. Liq. 3, H226 Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 2, H411 The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended. See Section 16 for the full text of the H statements declared above. See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards ide	ntification
Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapor. May cause an allergic skin reaction. Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Do not breathe vapor.
Response	: Collect spillage.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazardous ingredients	: 4-methylpentan-2-one maleic anhydride
Supplemental label elements	: FOR INDUSTRIAL USE ONLY
Special packaging requirem	<u>ients</u>
Not applicable.	
2.3 Other hazards	
	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other hazards which do not result in classification	Risk of spontaneous combustion. Spraydust, cloth and other contaminated organic material should be wetted and placed in a sealed metal container. Store in a fire-proof place.

SECTION 3: Composition/information on ingredients

3.2 Mixture

3.2 Mixture :					
Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
Methyl n-Amyl Ketone	REACH #: 01-2119902391-49 EC: 203-767-1 CAS: 110-43-0 Index: 606-024-00-3	≥10 - ≤17	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H332 STOT SE 3, H336	ATE [Oral] = 1600 mg/kg ATE [Inhalation (vapours)] = 11 mg/ I	[1] [2]
Crystalline Silica, respirable powder	EC: 238-878-4 CAS: 14808-60-7	≥10 - ≤25	STOT RE 1, H372 (inhalation)	-	[1] [2]
Methyl n-Propyl Ketone	EC: 203-528-1 CAS: 107-87-9	≤8.4	Èlam. Liq. 2, H225 Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1600 mg/kg	[1] [2]
Zinc Phosphate	EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Date of issue/Date of revision	: 18, Jan, 2024	Date of previo	bus issue : 16, Nov, 2023	Version : 5	2/21
				SHW-A4-EU-CLP44-A	АТ

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II MIL-DTL-11195H Type II Fast Dry Lusterless Enamel 3.5 VOC Black 37038 Q2059 F93BL350					
SECTION 3: Composit	ion/information or	n ingredier	nts		
Methyl Isobutyl Ketone	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	≤1.3	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	ATE [Inhalation (vapours)] = 11 mg/ I	[1] [2]
n-Butyl Acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≤1.3	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
Toluene	REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	≤0.3	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	-	[1] [2]
Zinc Oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤0.3	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Med. Aliphatic Hydrocarbon Solvent	EC: 265-191-7 CAS: 64742-88-7 Index: 649-405-00-X	≤0.3	Flam. Liq. 3, H226 STOT RE 1, H372 (central nervous system (CNS)) Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1]
Maleic Anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	≤0.1	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section. <u>Type</u>

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General	 In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
Eye contact	 Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	 If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	reat symptomatically. Contact poison treatment specialist imme uantities have been ingested or inhaled.	diately if large
Specific treatments	lo specific treatment.	

See toxicological information (Section 11)

SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable extinguishing media	: Recommended: alcohol-resistant foam, CO ₂ , powders, water spray or mist.	
Unsuitable extinguishing media	: Do not use water jet.	

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	 Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Hazardous combustion products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

SECTION 5: Firefighting measures

5.3 Advice for firefighters		
Special protective actions for fire-fighters	:	Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
Special protective equipment for fire-fighters	:	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, pro	te	ctive equipment and emergency procedures
For non-emergency personnel	:	Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.
		Keep unnecessary and unprotected personnel from entering.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.
6.3 Methods and materials for containment and cleaning up	:	Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling	 Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses. Information on fire and explosion protection Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air.
	When operators, whether spraying or not, have to work inside the spray booth,

Date of issue/Date of revision	: 18, Jan, 2024	Date of previous issue	: 16, Nov, 2023	Version : 5	5/21
				SHW-A4-EU-CLP44-AT	

SECTION 7: Handling and storage

ventilation is unlikely to be sufficient to control particulates and solvent vapors in all cases. In such circumstances, they should wear a compressed-air-fed respirator during the spraying process and until the particulate and solvent vapor concentrations have fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities	: Store in accordance with local regulations. Notes on joint storage Keep away from: oxidizing agents, strong alkalis, strong acids. Additional information on storage conditions Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
	Contaminated absorbent material may pose the same hazard as the spilled product.
7.3 Specific end use(s) Recommendations	· Not available

Recommendations	: Not available.
Industrial sector specific solutions	: Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name Exposure limit values			
Methyl n-Amyl Ketone	Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 237 mg/m ³ 8 hours. PEAK: 100 ppm, 4 times per shift, 15 minutes. PEAK: 473 mg/m ³ , 4 times per shift, 15 minutes.		
Crystalline Silica, respirable powder	Regulation on Limit Values - MAC (Austria, 4/2021). [Quarzfeinstaub] AMV: 0.05 mg/m ³ Form: respirable dust		
Methyl n-Propyl Ketone	Regulation on Limit Values - MAC (Austria, 4/2021).TWA: 200 ppm 8 hours.TWA: 700 mg/m³ 8 hours.PEAK: 400 ppm, 4 times per shift, 15 minutes.PEAK: 1400 mg/m³, 4 times per shift, 15 minutes.		
Methyl Isobutyl Ketone	Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin. TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. PEAK: 50 ppm, 4 times per shift, 15 minutes. PEAK: 208 mg/m ³ , 4 times per shift, 15 minutes.		
n-Butyl Acetate	Regulation on Limit Values - MAC (Austria, 4/2021). [Butyl acetate (all isomers except tert-butyl acetate)] CEIL: 480 mg/m ³		
ate of issue/Date of revision : 18, Jan, 2024	Date of previous issue : 16, Nov, 2023 Version : 5 6/21 SHW-A4-EU-CLP44-AT		

	CEIL: 100 ppm
	TWA: 241 mg/m ³ 8 hours.
	TWA: 50 ppm 8 hours.
Toluene	Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed
	through skin.
	TWA: 50 ppm 8 hours.
	TWA: 190 mg/m ³ 8 hours.
	PEAK: 100 ppm, 4 times per shift, 15 minutes.
	PEAK: 380 mg/m ³ , 4 times per shift, 15 minutes.
Maleic Anhydride	Regulation on Limit Values - MAC (Austria, 4/2021). Skin
	sensitizer. Inhalation sensitizer.
	TWA: 0.1 ppm 8 hours.
	TWA: 0.4 mg/m ³ 8 hours.
	CEIL: 0.2 ppm, 8 times per shift, 5 minutes.
	CEIL: 0.8 mg/m ³ , 8 times per shift, 5 minutes.

Biological exposure indices

toluene	VGU BEI (Austria, 9/2020) BEI Fitness: 250 µg/l, toluene [in blood]. Sampling time: one year. BEI Fitness: 0.8 mg/l, o-cresol [in urine]. Sampling time: one year. BEI Fitness: 130000 /µl, platelets (non-pathological differential
	 blood count) [in blood]. Sampling time: one year. BEI Fitness: 150000 /µl, platelets [in blood]. Sampling time: one year. BEI Fitness: 3700 to 13000 /µl, leukocytes (non-pathological differential blood count) [in blood]. Sampling time: one year. BEI Fitness: 4000 to 13000 /µl, leukocytes [in blood]. Sampling time: one year. BEI Fitness - men: 3.8 million/µl, erythrocytes [in blood]. Sampling time: one year. BEI Fitness - women: 3.2 million/µl, erythrocytes [in blood]. Sampling time: one year. BEI Fitness - men: 12 g/dl, hemoglobin [in blood]. Sampling time: one year. BEI Fitness - women: 10 g/dl, hemoglobin [in blood]. Sampling time: one year.
procedures Europea assess values a atmosp of expo (Workp for the r docume required : Regular	Ance should be made to monitoring standards, such as the following: an Standard EN 689 (Workplace atmospheres - Guidance for the ment of exposure by inhalation to chemical agents for comparison with limit and measurement strategy) European Standard EN 14042 (Workplace heres - Guide for the application and use of procedures for the assessment sure to chemical and biological agents) European Standard EN 482 lace atmospheres - General requirements for the performance of procedures measurement of chemical agents) Reference to national guidance ents for methods for the determination of hazardous substances will also be d. monitoring of all work areas should be carried out at all times, including hat may not be equally ventilated.

Product/ingredient name	Туре	Exposure	Value	Population	Effects
Methyl n-Amyl Ketone	DNEL	Short term	1516 mg/	Workers	Systemic
		Inhalation	m³		
	DNEL	Long term Dermal	54.27 mg/	Workers	Systemic
		[kg		
	DNEL	Long term	394.25 mg/	Workers	Systemic
		Inhalation	m³		
	DNEL	Long term Dermal	23.32 mg/	General	Systemic
			kg bw/day	population	
		[[Consumers]	
	DNEL	Long term	84.31 mg/	General	Systemic
		Inhalation	m³	population	
			1	[Consumers]	_
	DNEL	Long term Oral	23.32 mg/	General	Systemic
			kg bw/day	population	
				[Consumers]	
Methyl n-Propyl Ketone	DNEL	Long term	209.38 mg/	Workers	Systemic
- · · · ·		Inhalation	m ³		, , , , , , , , , , , , , , , , , , ,
	DNEL	Short term	4784 mg/	Workers	Systemic
		Inhalation	m ³		
	DNEL	Long term Dermal	19.9 mg/	Workers	Systemic
		Jan 2 Sinia	kg bw/day		,
	DNEL	Long term	62.5 mg/m ³	General	Systemic
	L	Inhalation	y/111	population	,
	DNEL	Short term	4284 mg/	General	Systemic
		Inhalation	4204 mg/	population	2,000000
	DNEL	Long term Dermal	18 mg/kg	General	Systemic
			bw/day	population	2,000000
	DNEL	Long term Oral	bw/day 18 mg/kg	General	Systemic
			bw/day	population	Systemic
Methyl Isobutyl Ketone	DNEL	Short term	208 mg/m ³	Workers	Systemic
Moury Bobuly Netolle			200 mg/m²	VV UINCIS	Gysternic
	DNEL	Inhalation Short term	208 ma/m3	Workers	Local
	UNEL	Short term Inhalation	208 mg/m ³	VVUIKEIS	LOCAL
			82 mala-3	Workorg	Suptom:
	DNEL	Long term	83 mg/m³	Workers	Systemic
		Inhalation	02	Mortens	
	DNEL	Long term	83 mg/m³	Workers	Local
		Inhalation	11.0		0
	DNEL	Long term Dermal	11.8 mg/	Workers	Systemic
	·		kg bw/day	Commit	0
	DNEL	Short term	155.2 mg/	General	Systemic
		Inhalation	m³	population	
			455 5	[Consumers]	. .
	DNEL	Short term	155.2 mg/	General	Local
		Inhalation	m³	population	
				[Consumers]	
	DNEL	Long term	14.7 mg/m ³	General	Systemic
		Inhalation		population	
		[[Consumers]	
	DNEL	Long term	14.7 mg/m ³	General	Local
		Inhalation		population	
				[Consumers]	
	DNEL	Long term Dermal	4.2 mg/kg	General	Systemic
		-	bw/day	population	
				[Consumers]	
	DNEL	Long term Oral	4.2 mg/kg	General	Systemic
			bw/day	population	,
				[Consumers]	
n-Butyl Acetate	DNEL	Short term	600 mg/m³	Workers	Local
,		Inhalation	····g/····		
to of icous/Data of maria is a final for	1	Doto of series 1		2022	i ion : 5
e of issue/Date of revision : 18, Jan, 2	- u24	Date of previous is	sue : 16, Nov,	ZUZ3 Vorei	i on :5

DNEL Inhalation Inhalation DNEL DNEL DNEL OP		DNEL	Long term	300 mg/m ³	Workers	Local
Interm Interm			Inhalation			
DNEL Inhalation Inhalation DNEL DN		DNEL		300 mg/m ³		Local
InitializionopulationopulationDNEL DN				35 7 ma/m ³		
DNEL DNEL DNEL DNEL DNELLong term Dermal DNEL DNEL DNEL DNEL11 mg/kg Systemic mpoulation DNEL DNEL DNELWorkers Systemic population DNELSystemic population General DNELSystemic Systemic DNELDNEL DNELShort term Oral DNEL2 mg/kg General DNELGeneral Systemic populationSystemic populationDNEL DNELShort term nhalation226 mg/m2General General populationSystemic populationDNEL DNEL DNEL DNELShort term nhalation226 mg/m2General General population Human via the environment]Systemic population Human via the environment]Systemic population Human via the environment]DNEL DNEL		DNEL	-	so./ mg/m ^s		Local
DNEL DNELShort term Dermal Long term Dermal11 mg/kg 6 mg/kgWorkers General population General population General Systemic populationSystemic population General DNELSystemic population General DNELSystemic population General DNELSystemic population General DNELSystemic population General DNELSystemic population General DNELSystemic population General DNELSystemic population General population General population General population General population Human via the environment]Systemic population General population General population Human via the environment]Systemic population General population Human via the environment]Systemic population (Human via the environment]DNELOng term Dermal Inhalation226 mg/m2 General population (Human via the environment]Systemic population (Human via the environment]Systemic population (Human via the environment]DNELLong term Oral Inhalation8.13 mg/ (General population (Human via the environment]Systemic population (Human via the environment]DNELLong term Oral Inhalation132 mg/m2 (WorkersSystemic population (Human via the environment]DNELLong term Inhalation192 mg/m2 (WorkersSystemic population (Human via the environment]DNELLong term Inhalation192 mg/m2 (WorkersSystemic population (Human via the environment]DNELLong term Inh				11 ma/ka		Systemic
DNELLong term Dermal6 mg/kgGeneral opulation populationSystemic populationDNELShort term Dermal6 mg/kgGeneral populationSystemic populationDNELInterm Oral2 mg/kgGeneral populationSystemic populationDNELShort term Oral2 mg/kgGeneral populationSystemic populationDNELShort term inhalation226 mg/m3General populationSystemic populationDNELShort term inhalation226 mg/m3General environment]Systemic population (Human via the environment]DNELLong term Dermal226 mg/m3General environment]Systemic population (Human via the environment]DNELLong term inhalation226 mg/m3General environment]Systemic population (Human via the environment]DNELLong term inhalation65.5 mg/m3General population (Human via the environment]Systemic population (Human via the environment]DNELLong term Oral8.13 mg/ kg bw/dayGeneral population (Human via the environment]Systemic population (Human via the environment]DNELLong term Oral8.13 mg/ kg bw/dayWorkersSystemic population (Human via the environment]DNELLong term Oral8.13 mg/ kg bw/dayWorkersSystemic population (Human via the environment]DNELLong term Oral8.13 mg/ kg bw/dayWorkersSystemicDNELLon						
Inc OxideOpulation DNELShort term Dermal Soft term Oral6 mg/kg general population General Dopulation General DNELShort term Oral DNEL2 mg/kg Softemic population General DNELSystemic Systemic population (Human via the environment]Systemic Systemic population (Human via the environment]DNELLong term Inhalation192 mg/m² WorkersWorkersSystemic population (Human via the environment]DNELLong term Inhalation192 mg/m² WorkersWorkersSystemic population (Human via the environment]DNELLong term 						
DNELShort term Dermal6 mg/kgGeneral population populationSystemic populationDNELLong term Oral2 mg/kgGeneral populationSystemic populationDNELShort term Oral2 mg/kgGeneral populationSystemic populationDNELShort term inhalation226 mg/m²General population (Human via the environment]Systemic populationDNELShort term inhalation226 mg/m²General population (Human via the environment]Systemic population (Human via the environment]Systemic systemic population (Human via the environment]Systemic systemicDNELLong term inhalation192 mg/m² (SorkersWorkersSystemic systemicDNELLong term inhalation192 mg/m² (SorkersWorkersSystemic systemicDNELLong term Dermal inhalation384 mg/m² <td></td> <td></td> <td></td> <td>5g/ivg</td> <td></td> <td></td>				5g/ivg		
DNEL Long term Oral 2 mg/kg population General population Systemic population DNEL Short term Oral 2 mg/kg General General Systemic population DNEL Short term Oral 2 mg/kg General Systemic population DNEL Short term 226 mg/m ³ General Systemic population DNEL Short term 226 mg/m ³ General Local DNEL Short term 226 mg/m ³ General Local DNEL Short term Dermal 226 mg/m ³ General Systemic DNEL Long term 226 mg/m ³ General Systemic DNEL Long term 226 mg/m ³ General Systemic DNEL Long term 56.5 mg/m ³ General Systemic DNEL Long term 192 mg/m ³ General Systemic DNEL Long term 192 mg/m ³ Workers Local DNEL Long term 192 mg/m ³ Workers Local DNEL <t< td=""><td></td><td>DNEL</td><td>Short term Dermal</td><td>6 ma/ka</td><td></td><td>Systemic</td></t<>		DNEL	Short term Dermal	6 ma/ka		Systemic
DNELlong term Oral2 mg/kgGeneral opulation General opulation General opulation General opulation General opulation General opulation General opulation General opulation Human via the environment]Systemic opulation General opulation Human via the environment]Systemic Systemic opulation 				- 3		,
DNELShort term Oral2 mg/kgGeneral population General population General population General population General population Human via the environment] General population [Human via the environment]Systemic population [Human via the environment] General population [Human via the environment]Local population [Human via the environment] General population [Human via the environment]Local population [Human via the environment]DNELLong term Dermal Inhalation226 mg/m2General population [Human via the environment]Systemic population [Human via the environment]DNELLong term Inhalation266 mg/m2General population [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral Inhalation8.13 mg/ general population [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral Inhalation8.13 mg/ general population [Human via the environment]Systemic systemic population [Human via the environment]DNELLong term Inhalation192 mg/m3 WorkersWorkersLocal inhalationDNELLong term Inhalation192 mg/m3 WorkersWorkersSystemic inhalationDNELLong term Inhalation384 mg/m3 WorkersWorkersSystemic inhalationDNELLong term InhalationSemand SemandGeneral populationSystemic inhalationDNELLo		DNEL	Long term Oral	2 mg/kg	General	Systemic
olueneDNELShort term nhalation226 mg/m3General population (Human via the environment] General population (Human via the environment]Systemic population (Human via the environment]DNELShort term nhalation226 mg/m3General population (Human via the environment]Systemic population (Human via the environment]DNELLong term Dermal226 mg/m3General population (Human via the environment]Systemic population (Human via the environment]DNELLong term Inhalation226 mg/m3General population (Human via the environment]Systemic population (Human via the environment]DNELLong term Inhalation56.5 mg/m3General population (Human via the environment]Systemic population (Human via the environment]DNELLong term Oral Inhalation8.13 mg/ gov/ar population (Human via the environment]Systemic systemicDNELLong term Inhalation192 mg/m3 WorkersWorkersSystemicDNELLong term Inhalation184 mg/m3 WorkersWorkersSystemicDNELLong term Dermal Inhalation384 mg/m3 WorkersWorkersSystemicInc OxideDNELLong term Inhalation56.5 mg/m3 WorkersGeneral population (Consumers)SystemicInc OxideDNELLong term Inhalation56.5 mg/m3 WorkersGeneral population (Consumers)SystemicInc OxideDNELLong term Dermal I		DNEL	Short term Oral	2 mg/kg	General	Systemic
inc Oxide Inc Oxide Inc. Series Construction (Human via the environment) (Human via th				000 1 3		
DNELShort term inhalation226 mg/m³[Human via the environment] General population [Human via the environment]LocalDNELLong term Dermal226 mg/m³General population [Human via the environment]Systemic population [Human via the environment]Systemic systemicDNELLong term nhalation192 mg/m³ NorkersWorkersSystemic systemicDNELShort term nhalation384 mg/m³ bw/dayWorkersSystemic Consumers]DNELLong term Dermal nhalation384 mg/m³ bw/dayWorkersSystemic Consumers]NCOxideDNELLong term nhalation5.5 mg/m³ bw/dayGeneral population [Consumers]Local coal coal coal population [Consumers]NCELong term nhalation5.5 mg/m³ bw/dayGeneral population [Consum	Juene	DNEL		226 mg/m³		Systemic
DNELShort term nhalation226 mg/m³orvironment] General population [Human via the environment] General population [Human via the environment]LocalDNELLong term Dermal226 mg/m³General general population [Human via the environment]Systemic population [Human via the environment]DNELLong term nhalation226 mg/m³General population [Human via the environment]Systemic population [Human via the environment]DNELLong term nhalation56.5 mg/m³General population [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral nhalation8.13 mg/ gopulation [Human via the environment]Systemic population [Human via the environment]DNELLong term nhalation192 mg/m³WorkersSystemic coral nhalationDNELLong term nhalation192 mg/m³WorkersSystemic coral nhalationDNELLong term nhalation192 mg/m³WorkersSystemic coral nhalationDNELLong term nhalation384 mg/m³ (KorkersSystemic coral population [Consumers]nc OxideDNELLong term nhalationSystemic malationSystemic coral population [Consumers]nc OxideDNELLong term nhalation5 mg/m³ (Sonsumers]General population [Consumers]nc OxideDNELLong term nhalation5 mg/m³ (Sonsumers]Systemic coral population [Co			mnalation			
DNELShort term nhalation226 mg/m³General population [Human via the environment]LocalDNELLong term Dermal226 mg/m³General gopulation [Human via the environment]Systemic population [Human via the environment]DNELLong term nhalation226 mg/kg bw/dayGeneral population [Human via the environment]Systemic systemic population [Human via the environment]DNELLong term nhalation56.5 mg/m³General population [Human via the environment]SystemicDNELLong term Oral nhalation8.13 mg/ kg bw/dayGeneral population [Human via the environment]SystemicDNELLong term Oral nhalation8.13 mg/ gopulation [Human via the environment]SystemicDNELLong term nhalation192 mg/m³WorkersLocalDNELLong term nhalation192 mg/m³WorkersLocalDNELLong term nhalation384 mg/m³ bw/dayWorkersLocalDNELLong term nhalation384 mg/m³ bw/dayWorkersSystemicDNELLong term nhalation384 mg/m³ bw/dayWorkersSystemicDNELLong term nhalationSong/m³General consumers]LocalDNELLong term nhalationSystemicSystemicDNELLong term nhalationSong/m³General consumers]Local populationDNELLong term nhalationSong/m³WorkersSystemic <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
nhalationpopulation (Human via the environment] General population [Human via the environment] General box(day MorkersSystemic systemic inhalation DNEL Long term DNEL ong term 192 mg/m³ WorkersSystemic Systemic Local population [Consumers] WorkersSystemic Systemic Local population [Consumers] WorkersSystemic Systemic Local population [Consumers] WorkersSystemic Systemic Local population [Consumers] WorkersSystemic Systemic Systemic DNEL Long term DNEL Long term DNEL Long term DNEL Long term DNEL Long term DNEL			Short term	$226 m \alpha / m^3$		
DNELLong term Dermal226 mg/m³Human via the environment] General population [Human via the environment]Systemic population [Human via the environment]DNELLong term Inhalation226 mg/kg bw/dayGeneral population [Human via the environment]Systemic population [Human via the environment]DNELLong term Inhalation56.5 mg/m³General population [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral8.13 mg/ Rg bw/daySystemic population [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral8.13 mg/ Rg bw/daySystemic population [Human via the environment]DNELLong term Inhalation192 mg/m³WorkersLocalDNELLong term Inhalation384 mg/m³WorkersLocalDNELLong term Dermal Inhalation384 mg/m³WorkersSystemicDNELLong term Dermal InhalationSet mic InhalationSet mic SystemicLocalDNELLong term InhalationSet mg/m³WorkersSystemicDNELLong term InhalationSet mg/m³WorkersSystemicDNELLong term InhalationSistemicLocalLocalDNELLong term InhalationSistemicSystemicDNELLong term Dermal InhalationSistemicLocalDNELLong term Dermal InhalationSistemic<				220 mg/m		
DNELLong term Dermal226 mg/m³environment] General population [Human via the environment]SystemicDNELLong term inhalation226 mg/kg bw/dayGeneral opulation [Human via the environment]SystemicDNELLong term inhalation56.5 mg/m³General opulation [Human via the environment]SystemicDNELLong term inhalation56.5 mg/m³General opulation [Human via the environment]SystemicDNELLong term Oral inhalation8.13 mg/ general population [Human via the environment]SystemicDNELLong term inhalation192 mg/m³WorkersSystemicDNELLong term inhalation192 mg/m³WorkersLocalDNELShort term inhalation384 mg/m³WorkersSystemicDNELShort term inhalation384 mg/m³WorkersLocalDNELLong term Dermal inhalation384 mg/m³WorkersSystemicDNELLong term inhalation56.5 mg/m³General workersLocalDNELLong term inhalation56.5 mg/m³WorkersSystemicDNELLong term inhalation56.5 mg/m³WorkersSystemicDNELLong term inhalation5.5 mg/m³WorkersSystemicDNELLong term inhalation0.5 mg/m³WorkersSystemicDNELLong term Dermal inhalation83 mg/kg WorkersWorkersSystemicDNELLong term Derm						
DNELLong term Dermal226 mg/m³General population [Human via the environment]]SystemicDNELLong term nhalation226 mg/kg bw/dayGeneral population [Human via the environment]]Systemic population [Human via the environment]]DNELLong term nhalation56.5 mg/m³General General population [Human via the environment]]Systemic population [Human via the environment]DNELLong term Oral8.13 mg/ Rg bw/dayGeneral population [Human via the environment]Systemic population [Human via the environment]DNELLong term Inhalation192 mg/m³WorkersLocalDNELLong term Inhalation192 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersSystemicDNELLong term Dermal Inhalation384 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Dermal Inhalation83 mg/kg WorkersWorkersSystemicDNELLong term Dermal Inhalation					•	
DNELLong term inhalation226 mg/kg bw/daypopulation [Human via the environment]Systemic population [Human via the environment]DNELLong term inhalation56.5 mg/m³General opulation [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral inhalation8.13 mg/ gopulation [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral inhalation8.13 mg/ gopulation [Human via the environment]Systemic population [Human via the environment]DNELLong term inhalation192 mg/m³WorkersSystemic coral population [Human via the environment]DNELLong term inhalation192 mg/m³WorkersLocal inhalationDNELShort term inhalation384 mg/m³ bw/dayWorkersSystemic inhalationDNELLong term inhalation384 mg/m³ bw/dayWorkersSystemic bw/dayDNELLong term inhalation56.5 mg/m³ Beneral population [Consumers]Systemic bw/daync OxideDNELLong term inhalation56.5 mg/m³ Beneral bw/dayGeneral bw/dayLocal infalation [Donsumers]nc OxideDNELLong term inhalation5.5 mg/m³ Beneral bw/dayGeneral bw/dayLocal infalation [Donsumers]nc OxideDNELLong term inhalation5.5 mg/m³ Beneral BorkersSystemic bw/daync OxideDN		DNEL	Long term Dermal	226 mg/m ³		Systemic
DNELLong term inhalation226 mg/kg bw/day[Human via the environment] General population [Human via the environment]SystemicDNELLong term inhalation56.5 mg/m³General opulation [Human via the environment]SystemicDNELLong term Oral8.13 mg/ kg bw/dayGeneral population [Human via the environment]SystemicDNELLong term Oral8.13 mg/ kg bw/dayGeneral population [Human via the environment]SystemicDNELLong term Oral192 mg/m³WorkersLocalDNELLong term inhalation192 mg/m³WorkersLocalDNELShort term inhalation384 mg/m³WorkersLocalDNELShort term inhalation384 mg/m³WorkersLocalDNELLong term inhalation56.5 mg/m³General population [Consumers]LocalDNELLong term inhalation56.5 mg/m³WorkersSystemicDNELLong term inhalation55 mg/m³WorkersSystemicDNELLong term inhalation5.5 mg/m³WorkersSystemicDNELLong term inhalation5.5 mg/m³WorkersSystemicDNELLong term inhalation5.5 mg/m³WorkersSystemicDNELLong term inhalation5.5 mg/m³WorkersSystemicDNELLong term inhalation5.5 mg/m³WorkersSystemicDNELLong term inhalation0.5 mg/m³Work						
DNEL InhalationLong term Inhalation226 mg/kg bw/dayGeneral population [Human via the environment]]SystemicDNEL DNELLong term Inhalation56.5 mg/m³General gopulation [Human via the environment]]SystemicDNEL DNELLong term Oral Inhalation8.13 mg/ kg bw/dayGeneral population [Human via the environment]]SystemicDNEL DNELLong term Inhalation192 mg/m³ WorkersWorkersSystemicDNEL DNEL DNELLong term Inhalation192 mg/m³ WorkersWorkersLocalDNEL DNEL DNEL DNELShort term Inhalation384 mg/m³ WorkersWorkersSystemicDNEL DNEL DNEL DNEL DNEL DNEL DNELShort term Inhalation384 mg/m³ WorkersWorkersLocalDNEL InhalationOng term Inhalation384 mg/m³ WorkersWorkersSystemicDNEL InhalationOng term InhalationSmg/m³ WorkersLocalLocalDNEL InhalationOng term Inhalation5 mg/m³ WorkersSystemicDNEL InhalationOng term Inhalation5 mg/m³ WorkersSystemicDNEL InhalationSmg/m³ WorkersSystemicDNEL Inhalation0.5 mg/m³ WorkersSystemicDNEL Inhalation0.5 mg/m³ BW/dayWorkersSystemicDNEL Inhalation0.5 mg/m³ BW/dayWorkersSystemicDNEL Inhalation0.5 mg/m³ BW/dayWorkers<						
Inhalationbw/daypopulation [Human via the environment]DNELLong term Inhalation56.5 mg/m³General opulation [Human via the environment]DNELLong term Oral8.13 mg/ generalGeneral opulation [Human via the environment]DNELLong term Oral8.13 mg/ generalSystemicDNELLong term Inhalation192 mg/m³WorkersSystemicDNELLong term Inhalation192 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersSystemicDNELShort term Inhalation384 mg/m³WorkersSystemicDNELLong term Dermal384 mg/m³WorkersSystemicDNELLong term Inhalation56.5 mg/m³General WorkersLocalDNELLong term Inhalation56.5 mg/m³WorkersSystemicDNELLong term Inhalation56.5 mg/m³WorkersSystemicDNELLong term Inhalation56.5 mg/m³WorkersSystemicDNELLong term Inhalation56.5 mg/m³WorkersSystemicDNELLong term Inhalation56.5 mg/m³WorkersSystemicDNELLong term Inhalation57 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³Workers<					environment]	
DNELLong term inhalation56.5 mg/m³[Human via the environment] General population [Human via the environment]SystemicDNELLong term Oral8.13 mg/ general population [Human via the environment]SystemicDNELLong term Oral8.13 mg/ general population [Human via the environment]SystemicDNELLong term Inhalation192 mg/m³WorkersSystemicDNELLong term Inhalation192 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELLong term Dermal Inhalation384 mg/m³WorkersSystemicDNELLong term Dermal InhalationSenaral BW/dayGeneral WorkersSystemicDNELLong term Inhalation56.5 mg/m³General population [Consumers]SystemicDNELLong term Inhalation56.5 mg/m³General population [Consumers]Local population [Consumers]nc OxideDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation5.5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Inhalation		DNEL				Systemic
DNELLong term Inhalation56.5 mg/m³environment] General population [Human via the environment]Systemic population [Human via the environment]DNELLong term Oral8.13 mg/ kg bw/dayGeneral population [Human via the environment]Systemic population [Human via the environment]DNELLong term Inhalation192 mg/m³WorkersSystemic environment]DNELLong term Inhalation192 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersSystemic environment]DNELShort term Inhalation384 mg/m³WorkersLocalDNELLong term Dermal Inhalation384 mg/m³WorkersSystemic population [Consumers]DNELLong term Inhalation5 mg/m³General population [Consumers]Local population [Consumers]nc OxideDNELLong term Inhalation5 mg/m³WorkersSystemic population [Consumers]nc OxideDNELLong term Inhalation5 mg/m³WorkersSystemic population [Consumers]nc OxideDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Dermal Inhalation83 mg/kg Bw/dayWorkersSystemic			Inhalation	bw/day		
DNELLong term Inhalation56.5 mg/m³General population [Human via the environment]SystemicDNELLong term Oral8.13 mg/ kg bw/dayGeneral population [Human via the environment]SystemicDNELLong term192 mg/m³WorkersSystemicDNELLong term192 mg/m³WorkersLocalDNELLong term192 mg/m³WorkersLocalDNELLong term192 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalDNELLong term Dermal384 mg/m³WorkersSystemicDNELLong term56.5 mg/m³General populationLocalDNELLong term5 mg/m³WorkersSystemicDNELLong term5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersLocalDNELLong term0.5 mg/m³WorkersLocalDNELLong term0.5 mg/m³WorkersLocalDNELLong term83 mg/kgWorkersLocalDNELLong term83 mg/kgWorkersSystemicDNELLong term2.5 mg/m³GeneralSystemic						
nc Oxide DNEL Long term Oral DNEL Long term Oral B.13 mg/kg Workers Local DNEL Long term Oral B.13 mg/kg Workers Systemic population [Human via the environment] DNEL Long term 192 mg/m³ Workers Local DNEL Short term 384 mg/m³ Workers Local Nhalation DNEL Short term 384 mg/m³ Workers Local Nhalation DNEL Short term 384 mg/m³ Workers Local Nhalation DNEL Cong term Dermal 384 mg/m³ Workers Local Local Nhalation DNEL Cong term 56.5 mg/m³ General Local population [Consumers]] DNEL Long term 56.5 mg/m³ Workers Systemic Nhalation DNEL Long term 56.5 mg/m³ Workers Local Nhalation DNEL Long term 56.5 mg/m³ Workers Systemic Nhalation DNEL Long term 0.5 mg/m³ Workers Local Norkers Systemic Nhalation DNEL Long term 0.5 mg/m³ Workers Systemic Nhalation DNEL Long term 0.5 mg/m³ General Systemic Nhalation DNEL Long term 0.5 mg/m³ General Systemic Systemic Nhalation DNEL Long term 0.5 mg/m³ General Systemic Nhalation DNEL No Systemic Nhalation DNEL Systemic Nhalation DNEL Systemic Nhalation DNEL Systemi						
DNELLong term Oral8.13 mg/ (g bw/day)[Human via the environment] General population [Human via the environment]SystemicDNELLong term192 mg/m³WorkersSystemicDNELLong term192 mg/m³WorkersLocalDNELLong term192 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersSystemicDNELShort term384 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalDNELCong term56.5 mg/m³GeneralLocalDNELLong term56.5 mg/m³GeneralLocalDNELLong term56.5 mg/m³WorkersSystemicDNELLong term5.5 mg/m³WorkersSystemicDNELLong term5.5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersLocalDNELLong term0.5 mg/m³WorkersLocalDNELLong term0.5 mg/m³WorkersLocalDNELLong term0.5 mg/m³WorkersLocalDNELLong term0.5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³GeneralSystemicDNELLong term0.5 mg/m³GeneralSystemicDNELLong term2.5 mg		DNEL		56.5 mg/m ³		Systemic
DNELLong term Oral8.13 mg/ (kg bw/day)environment] General population [Human via the environment]SystemicDNELLong term192 mg/m³WorkersSystemicDNELLong term192 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersSystemicDNELShort term384 mg/m³WorkersSystemicDNELShort term384 mg/m³WorkersLocalDNELDNELLong term Dermal384 mg/m³WorkersSystemicDNELLong term56.5 mg/m³General LocalLocalDNELLong term56.5 mg/m³WorkersSystemicnhalationDNELLong term5.5 mg/m³General populationLocalDNELLong term5.5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersSystemicDNELLong term Dermal83 mg/kg bw/dayWorkersSystemicDNELLong term Dermal83 mg/kg bw/dayWorkersSystemic			Inhalation			
DNELLong term Oral8.13 mg/ kg bw/dayGeneral population [Human via the environment]SystemicDNELLong term192 mg/m³WorkersSystemicDNELLong term192 mg/m³WorkersLocalDNELLong term192 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalDNELCong term Dermal384 mg/m³WorkersSystemicDNELLong term DermalSeneral populationLocalDNELLong term56.5 mg/m³General populationLocalDNELLong term5 mg/m³WorkersSystemicNELLong term5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersLocalDNELLong term0.5 mg/m³WorkersSystemicDNELLong term Dermal83 mg/kgWorkersSystemicDNELLong term Dermal83 mg/kgWorkersSystemic					•	
kg bw/daypopulation [Human via the environment]DNELLong term192 mg/m³WorkersSystemicInhalationDNELLong term192 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersSystemicInhalationDNELShort term384 mg/m³WorkersLocalDNELShort term384 mg/m³WorkersLocalInhalationDNELShort term384 mg/m³WorkersSystemicDNELShort term384 mg/m³WorkersSystemicInhalationDNELLong term Dermal384 mg/kgWorkersSystemicDNELLong term56.5 mg/m³GeneralLocalInhalationDNELLong term5 mg/m³WorkersSystemicInhalationDNELLong term0.5 mg/m³WorkersSystemicDNELLong term0.5 mg/m³WorkersLocalDNELLong term Dermal83 mg/kgWorkersSystemicDNELLong term Dermal83 mg/kgWorkersSystemicDNELLong term Dermal83 mg/kgWorkersSystemic			l ong torm Oral	9 12 mal		Suctomic
nc Oxide DNEL Long term 192 mg/m ³ Workers Local DNEL Long term 192 mg/m ³ Workers Local DNEL Short term 384 mg/m ³ Workers Systemic Inhalation DNEL Short term 384 mg/m ³ Workers Local DNEL Short term 384 mg/m ³ Workers Local DNEL Short term 384 mg/m ³ Workers Local DNEL Cong term Dermal 384 mg/kg Workers Systemic DNEL Long term 0 384 mg/m ³ General Local DNEL Long term 5 mg/m ³ General Local DNEL Long term 5 mg/m ³ Workers Systemic DNEL Long term 0.5 mg/m ³ General Systemic		DNEL	Long term Oral			Systemic
DNELLong term Inhalation192 mg/m³environment] WorkersSystemicDNELLong term Inhalation192 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELLong term Dermal384 mg/m³WorkersSystemicDNELLong term Dermal384 mg/m³WorkersSystemicDNELLong term Inhalation56.5 mg/m³General population [Consumers]LocalDNELLong term Inhalation5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Dermal83 mg/kg bw/dayWorkersSystemicDNELLong term Inhalation2.5 mg/m³General SystemicSystemic				ky pw/day		
DNELLong term Inhalation192 mg/m³WorkersSystemicDNELLong term Inhalation192 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersSystemicDNELShort term Inhalation384 mg/m³WorkersLocalDNELShort term Inhalation384 mg/m³WorkersLocalDNELCong term Dermal384 mg/kg bw/dayWorkersSystemicDNELLong term Dermal384 mg/kg bw/dayWorkersSystemicDNELLong term Inhalation56.5 mg/m³General population [Consumers]LocalDNELLong term Inhalation5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term 						
nhalation DNEL Long term 192 mg/m³ Workers Local nhalation DNEL Short term 384 mg/m³ Workers Systemic nhalation DNEL Short term 384 mg/m³ Workers Local nhalation DNEL Long term Dermal 384 mg/kg Workers Systemic bw/day DNEL Long term 56.5 mg/m³ General Local population [Consumers] Workers Systemic nhalation DNEL Long term 0.5 mg/m³ Workers Systemic nhalation DNEL Long term 0.5 mg/m³ Workers Local nhalation DNEL Long term 0.5 mg/m³ Workers Systemic NEL Long term 0.5 mg/m³ Workers Systemic DNEL Long term 0.5 mg/m³ Workers Systemic DNEL Long term Dermal 83 mg/kg Workers Systemic DNEL Long term 2.5 mg/m³ General Systemic			l ong term	192 mg/m^3		Systemic
DNELLong term inhalation192 mg/m³WorkersLocalDNELShort term inhalation384 mg/m³WorkersSystemicDNELShort term inhalation384 mg/m³WorkersLocalDNELShort term inhalation384 mg/m³WorkersLocalDNELLong term Dermal384 mg/kg bw/dayWorkersSystemicDNELLong term Dermal56.5 mg/m³General population [Consumers]LocalDNELLong term inhalation5 mg/m³WorkersSystemicDNELLong term inhalation5 mg/m³WorkersSystemicDNELLong term inhalation0.5 mg/m³WorkersSystemicDNELLong term Dermal83 mg/kg bw/dayWorkersSystemicDNELLong term Dermal83 mg/kg bw/daySystemicDNELLong term Dermal83 mg/kg bw/daySystemicDNELLong term2.5 mg/m³GeneralSystemic			J	152 mg/m	TT OILCIG	Cysternic
nc Oxide Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Long term Dermal 384 mg/m ³ Workers DNEL Long term Dermal 384 mg/kg bw/day DNEL Long term Inhalation DNEL Long term Dermal 83 mg/kg bw/day DNEL Long term 2.5 mg/m ³ General Systemic		DNEI		192 ma/m³	Workers	Local
DNELShort term Inhalation384 mg/m³WorkersSystemicDNELShort term Inhalation384 mg/m³WorkersLocalDNELShort term Inhalation384 mg/kg bw/dayWorkersSystemicDNELLong term Dermal384 mg/kg bw/dayWorkersSystemicDNELLong term Inhalation56.5 mg/m³General population [Consumers]LocalDNELLong term Inhalation5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersLocalDNELLong term Inhalation83 mg/kg bw/dayWorkersSystemicDNELLong term Dermal83 mg/kg bw/dayWorkersSystemicDNELLong term2.5 mg/m³GeneralSystemic			•			
nc Oxide Inhalation DNEL Short term 1884 mg/m ³ Workers Local Inhalation DNEL Long term Dermal 1884 mg/kg Workers Systemic bw/day DNEL Long term 56.5 mg/m ³ General Local population [Consumers] DNEL Long term 5 mg/m ³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m ³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m ³ Workers Local Inhalation DNEL Long term 0.5 mg/m ³ Workers Local Inhalation DNEL Long term 0.5 mg/m ³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m ³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m ³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m ³ Workers Systemic Inhalation DNEL Long term Dermal 83 mg/kg Workers Systemic Systemic Systemic Inhalation DNEL Long term Dermal 83 mg/kg Workers Systemic Systemic Systemic Inhalation DNEL Long term 2.5 mg/m ³ General Systemic Systemic Systemic Systemic Systemic Inhalation DNEL Long term Dermal 83 mg/kg Workers Systemic		DNEL		384 mg/m³	Workers	Systemic
nc Oxide DNEL Long term Dermal 384 mg/kg Workers Systemic DNEL Long term Dermal 384 mg/kg Workers Systemic bw/day General Local population [Consumers] DNEL Long term 5 mg/m³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m³ Workers Local Inhalation DNEL Long term Dermal 83 mg/kg Workers Systemic bw/day DNEL Long term 2.5 mg/m³ General Systemic						-
DNELLong term Dermal384 mg/kg bw/dayWorkersSystemicDNELLong term Inhalation56.5 mg/m³General population [Consumers]Localnc OxideDNELLong term Inhalation5 mg/m³WorkersSystemicDNELLong term Inhalation5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersLocalDNELLong term Inhalation0.5 mg/m³WorkersLocalDNELLong term Dermal83 mg/kg bw/dayWorkersSystemicDNELLong term Dermal83 mg/kg bw/dayWorkersSystemic		DNEL		384 mg/m³	Workers	Local
DNELLong term Inhalation56.5 mg/m³General population [Consumers]]Localnc OxideDNELLong term Inhalation5 mg/m³WorkersSystemicDNELLong term Inhalation0.5 mg/m³WorkersLocalDNELLong term Inhalation0.5 mg/m³WorkersLocalDNELLong term Long term Dermal83 mg/kg bw/dayWorkersSystemicDNELLong term2.5 mg/m³GeneralSystemic		DNEL			Workers	Systemic
nc Oxide DNEL Long term 5 mg/m ³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m ³ Workers Local DNEL Long term 0.5 mg/m ³ Workers Local Inhalation DNEL Long term Dermal 83 mg/kg DNEL Long term 2.5 mg/m ³ General Systemic			Long term		General	Local
nc Oxide DNEL Long term 5 mg/m ³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m ³ Workers Local Inhalation DNEL Long term Dermal 83 mg/kg DNEL Long term 2.5 mg/m ³ General Systemic			0	55.5 mg/m		
nc Oxide DNEL Long term 5 mg/m³ Workers Systemic Inhalation DNEL Long term 0.5 mg/m³ Workers Local Inhalation DNEL Long term Dermal 83 mg/kg Workers Systemic DNEL Long term 2.5 mg/m³ General Systemic						
DNELLong term0.5 mg/m³WorkersLocalInhalationInhalation83 mg/kgWorkersSystemicDNELLong term83 mg/kgWorkersSystemicDNELLong term2.5 mg/m³GeneralSystemic	nc Oxide	DNEL		5 mg/m³		Systemic
Inhalation DNEL Long term Dermal 83 mg/kg Workers Systemic bw/day DNEL Long term 2.5 mg/m³ General Systemic				0.5 mg/m^3	Workers	Local
DNEL Long term Dermal 83 mg/kg Workers Systemic bw/day DNEL Long term 2.5 mg/m³ General Systemic				5.5 mg/m	TT OILEIS	Local
DNEL Long term 2.5 mg/m ³ General Systemic		DNEL			Workers	Systemic
			l ong term		General	Systemic
nhalation population		DINEL	Inhalation	2.5 mg/m ⁻	population	Systemic
e of issue/Date of revision : 18, Jan, 2024 Date of previous issue : 16, Nov, 2023 Version : 5						

	DNEL	Long term Dermal	83 mg/kg	General	Systemic
			bw/day	population	
	DNEL	Long term Oral	0.83 mg/ kg bw/day	General population	Systemic
Med. Aliphatic Hydrocarbon Solvent	DNEL	Long term Inhalation	871 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	208 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	185 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Oral	125 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	General population [Consumers]	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Methyl n-Amyl Ketone	Fresh water	0.0982 mg/l	-
, ,	Marine water	0.00982 mg/l	-
	Fresh water sediment	1.89 mg/kg	_
	Marine water sediment	0.189 mg/kg	-
	Soil	0.321 mg/kg	-
	Sewage Treatment	12.5 mg/l	_
	Plant		
Methyl n-Propyl Ketone	Fresh water	0.11 mg/l	_
	Marine water	0.011 mg/l	_
	Fresh water sediment	0.717 mg/kg	_
	Marine water sediment	0.0717 mg/kg	-
	Soil	0.079 mg/kg	-
		0.25 mg/l	-
	Sewage Treatment Plant	0.25 mg/i	-
Methyl Isobutyl Ketone	Fresh water	0.6 mg/l	-
	Marine water	0.06 mg/l	-
	Sewage Treatment	27.5 mg/l	_
	Plant	Li lo mg/l	
	Fresh water sediment	8.27 mg/kg dwt	_
	Marine water sediment	0.83 mg/kg dwt	_
	Soil	1.3 mg/kg dwt	_
n-Butyl Acetate	Fresh water	0.18 mg/l	-
I-Dulyi Acelale	Marine water	0.018 mg/l	-
	Fresh water sediment		-
		0.981 mg/kg	-
	Marine water sediment	0.0981 mg/kg	-
	Soil	0.0903 mg/kg	-
	Sewage Treatment	35.6 mg/l	-
	Plant		
Toluene	Fresh water sediment	0.68 mg/l	Assessment Factors
	Marine water sediment	0.68 mg/l	Assessment Factors
	Sewage Treatment	13.61 mg/l	Assessment Factors
	Plant		
	Soil	2.89 mg/kg	Assessment Factors
	Fresh water sediment	16.39 mg/kg dwt	-
	Marine water sediment	16.39 mg/kg dwt	-
Zinc Oxide	Fresh water	0.0206 mg/l	-
	Marine water	0.0061 mg/l	-
	Sewage Treatment	0.1 mg/l	-
	Plant		
	Fresh water sediment	117.8 mg/kg dwt	-
nte of issue/Date of revision : 18, Jan, 2024	Date of previous issue	: 16, Nov, 2023	Version :5 10

F93BL350			
SECTION 8: Exposure controls/perso	nal protection		
	Marine water sediment Soil	56.5 mg/kg dwt 35.6 mg/kg dwt	

8 2 Exposuro controls	
8.2 Exposure controls Appropriate engineering controls	: Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.
	: Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Individual protection meas	ures
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Use safety eyewear designed to protect against splash of liquids.
Skin protection	
Hand protection	: Wear suitable gloves tested to EN374.
Gloves	: Gloves for short term exposure/splash protection (less than 10 min.): Nitrile>0.12 mm
	Gloves for splash protection need to be changed immediately when in contact with chemicals.
	Gloves for repeated or prolonged exposure (breakthrough time > 240 min.) When the hazardous ingredients in Section 3 contain any of the following: Aromatic solvents (Xylene, Toluene) or Aliphatic solvents or Mineral Oil use: Polyvinyl alcohol (PVA) gloves 0.2-0.3 mm Otherwise use: Butyl gloves >0.3 mm
	For long term exposure or spills (breakthrough time >480 min.): Use PE laminated gloves as under gloves Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG)
	 There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of
Body protection	use, as included in the user's risk assessment.Personnel should wear antistatic clothing made of natural fibers or of high-temperature-resistant synthetic fibers.

Other skin protection	 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	 Application methods: Brush or roller. Approved/certified respirator with organic vapor cartridge. Filter type: A2 P2 (EN14387). Manual spraying. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure controls	Do not allow to enter drains or watercourses.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Solubility(ies) Media	Result	
Relative density	1.32	
Relative vapor density	3.45 [Air = 1]	
Vapor pressure	3.7 kPa (27.8 mm Hg)	
Lower and upper explosion limit	LEL: 1.1% (Methyl n-Amyl Ketone) UEL: 8.7% (Methyl n-Propyl Ketone)	
Flammability	Flammable liquid.	
Evaporation rate	2.3 (butyl acetate = 1)	
boiling range Flash point	Closed cup: 39°C [Pensky-Martens Closed Cup]	
Initial boiling point and	102°C	
Melting point/freezing point	Not relevant/applicable due to nature of the product.	
рH	Not relevant/applicable due to nature of the product. insoluble in water.	
Odor threshold	Not Available (Not Tested).	
Odor	Solvent.	
Color	Not available.	
Physical state	Liquid.	

Partition coefficient: n-octanol Not relevant/applicable due to nature of the product.

2

Auto-ignition temperature

water

Ingredient name			°C	°F	Method	
Methyl n-Amyl Ketone n-Butyl Acetate Methyl Isobutyl Ketone			392 415 447	737.6 779 836.6		
Decomposition temperature		: Not rele	evant/applie	cable due to nature of	the product.	
Viscosity		: Kinema	atic (40°C):	>20.5 mm²/s		
Explosive properties		: Under	normal con	ditions of storage and	use, hazardous reactions will not oc	cur.
Oxidizing properties		: Under i	normal con	ditions of storage and	use, hazardous reactions will not oc	cur.
Particle characteristics						
Median particle size		: Not rele	evant/applic	able due to nature of	the product.	
9.2 Other information						
Heat of combustion		: 9.321 k	(J/g			
SECTION 10: Stability an	d	reactivity	1			
10.1 Reactivity	:	No specific	test data r	elated to reactivity av	ailable for this product or its ingredien	its.
10.2 Chemical stability	:	Stable und	er recomm	ended storage and ha	andling conditions (see Section 7).	
10.3 Possibility of hazardous reactions	:	Under norn	nal conditic	ons of storage and us	e, hazardous reactions will not occur.	
10.4 Conditions to avoid	:	When expo products.	osed to high	n temperatures may p	roduce hazardous decomposition	
10.5 Incompatible materials	:			bllowing materials to p ng alkalis, strong acid	prevent strong exothermic reactions: s.	
10.6 Hazardous decomposition products	:			cts may include the fo e, oxides of nitrogen.	llowing materials: carbon monoxide,	

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

There are no data available on the mixture itself. Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acute toxicity

SECTION 11: Toxicological information

		1		ii
Product/ingredient name	Result	Species	Dose	Exposure
Methyl n-Amyl Ketone	LD50 Oral	Rat	1600 mg/kg	-
Methyl n-Propyl Ketone	LD50 Dermal	Rabbit	6500 mg/kg	-
	LD50 Oral	Rat	1600 mg/kg	-
Methyl Isobutyl Ketone	LD50 Oral	Rat	2080 mg/kg	-
n-Butyl Acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Maleic Anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

Acute toxicity estimates

Route	ATE value	
Oral	7175.12 mg/kg	
Inhalation (vapors)	64.51 mg/l	

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methyl n-Amyl Ketone	Skin - Mild irritant	Rabbit	-	24 hours 14	-
				mg	
Methyl n-Propyl Ketone	Skin - Mild irritant	Rabbit	-	405 mg	-
Methyl Isobutyl Ketone	Eyes - Moderate irritant	Rabbit	-	24 hours 100	-
				uL	
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500	-
	En la Martin de la terreta	DULL		mg	
n-Butyl Acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
Taluana	Even Mild irritent	Dabbit		mg 0.5 minutes	
Toluene	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Mild irritant	Rabbit		870 ug	
	Eyes - Severe irritant	Rabbit	-	24 hours 2	_
		Rabbit	_	mg	
	Skin - Mild irritant	Pig	-	24 hours 250	-
				uL	
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20	-
				mg	
	Skin - Moderate irritant	Rabbit	-	500 mg	-
Zinc Oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
				mg	
	Skin - Mild irritant	Rabbit	-	24 hours 500	-
				mg	
Maleic Anhydride	Eyes - Severe irritant	Rabbit	-	1 %	-
Conclusion/Summary	: Not available.				
Sensitization					

No data available

Conclusion/Summary

: Not available.

Date of issue/Date of revision

Date of previous issue : 16, Nov, 2023

SHW-A4-EU-CLP44-AT

SECTION 11: Toxicological information

Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Methyl n-Amyl Ketone	Category 3	-	Narcotic effects 🥄
Methyl Isobutyl Ketone	Category 3	-	Narcotic effects
n-Butyl Acetate	Category 3	-	Narcotic effects
Toluene	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Crystalline Silica, respirable powder	Category 1	inhalation	-
Toluene	Category 2	-	-
Med. Aliphatic Hydrocarbon Solvent	Category 1	-	central nervous system (CNS)
Maleic Anhydride	Category 1	inhalation	respiratory system

Aspiration hazard

Product/ingredient name	Result		
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1		

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself. Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

SECTION 12: Ecological information

Product/ingredient name	Result	Species	Exposure
Methyl n-Amyl Ketone	Acute LC50 131000 µg/l Fresh water	Fish - Pimephales promelas	96 hours 🥄
Methyl n-Propyl Ketone	Acute LC50 1240000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Zinc Phosphate	Acute LC50 90 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Methyl Isobutyl Ketone	Acute LC50 505000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 78 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - <i>Pimephales promelas</i> - Embryo	33 days
n-Butyl Acetate	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
-	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Toluene	Acute EC50 >433 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch -	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Daphnia magna	21 days
Zinc Oxide	Acute IC50 1.85 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute LC50 98 μg/l Fresh water	Daphnia - <i>Daphnia magna -</i> Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Maleic Anhydride	Acute LC50 230 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
No data available				
Conclusion/Summary	: Not available.			

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methyl n-Amyl Ketone	-	-	Readily
Methyl Isobutyl Ketone	-	-	Readily
n-Butyl Acetate	-	-	Readily
Toluene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Zinc Phosphate	-	60960	High 🥄
Toluene	-	90	Low
Zinc Oxide	-	28960	High

12.4 Mobility in soil	
Soil/water partition	: Not available.
coefficient (Koc)	
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

Date of issue/Date of revision : 18, Jan, 2024

MIL-DTL-11195H Type II Fast Dry Lusterless Enamel 3.5 VOC Black 37038 Q2059 F93BL350

SECTION 12: Ecological information

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment metho	ds	
<u>Product</u>		
Methods of disposal	:	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	:	Yes.
European waste catalogue (EWC)	:	waste paint and varnish containing organic solvents or other hazardous substances 08 01 11*
Disposal considerations	:	Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.
<u>Packaging</u>		
Methods of disposal	:	The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Disposal considerations	:	Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
European waste catalogue (EWC)	:	packaging containing residues of or contaminated by hazardous substances 15 01 10*
Special precautions	:	This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	ΙΑΤΑ
14.1 UN number or ID number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT. Marine pollutant (Zinc Phosphate, Zinc Oxide)	PAINT
14.3 Transport Hazard Class(es)/ Label(s)			3
14.4 Packing group	111	111	111

SHW-A4-EU-CLP44-AT

SECTION 14: Transport information

	-		
14.5 Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Tunnel code</u> D/E	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Emergency schedules</u> F-E, S-E	The environmentally hazardous substance mark may appear if required by other transportation regulations.

14.6 Special precautions for : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in : Not applicable. **bulk according to IMO instruments**

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

<u>Annex XIV</u>

None of the components are listed.

<u>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous</u> <u>substances, mixtures and articles</u>

Product/ingredient name	%	Designation [Usage]
MIL-DTL-11195H Type II Fast Dry Lusterless Enamel 3.5 VOC Black 37038 Q2059	≥90	3
toluene	≤0.3	48
decamethylcyclopentasiloxane	≤0.1	70
octamethylcyclotetrasiloxane	<0.01	70
benzene	<0.1	5
		72

Labeling			Not ap	oplicable.	
Other EU regula	<u>ations</u>				
VOC content	(2010/75/EU)	:	26.6	w/w	

350 g/l

Explosive precursors : Not applicable.

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

SECTION 15: Regulatory information

Product/ingredient name	List name	Name on list	Classification	Notes
Crystalline Silica, respirable powder	Austria Occupational Exposure Limits	Quarzfeinstaub (alveolen-gängiges kristallines Siliziumdioxid)	Carc. C	-

15.2 Chemical Safety Assessment

: No Chemical Safety Assessment has been carried out.

SECTION 16: Other info	ormation
Indicates information that	has changed from previously issued version.
Abbreviations and acronyms	 ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative N/A = Not available
Key literature references and sources for data	 Regulation (EC) No. 1272/2008 [CLP] ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 Directive 2012/18/EU, and relative amendments & additions Directive 2008/98/EC, and relative amendments & additions Directive 2009/161/EU, and relative amendments & additions CEPE Guidelines

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Class	ification	Justification	
Flam. Liq. 3, H226 Skin Sens. 1, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 2, H411		On basis of test data Calculation method Calculation method Calculation method Calculation method	
Full text of abbreviated H statements	: H225 H226 H302 H304 H314 H315 H317 H318 H319 H332 H334 H336 H351 H361d H372	 Highly flammable liquid and vapor. Flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye damage. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated 	
Date of issue/Date of revision	: 18, Jan, 2024	Date of previous issue : 16, Nov, 2023 Version : 5 19/21 SHW-A4-EU-CLP44-AT	

SECTION 16: Other information

	exposure.H373May cause damage to organs through prolonged or repeated exposure.H400Very toxic to aquatic life.H410Very toxic to aquatic life with long lasting effects.H411Toxic to aquatic life with long lasting effects.H412Harmful to aquatic life with long lasting effects.EUH066Repeated exposure may cause skin dryness or cracking.EUH071Corrosive to the respiratory tract.
Full text of classifications [CLP/GHS]	 Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Aquatic Chronic 3 Aguatic Chronic 3 Aguatic Chronic 3 Aguatic Chronic 3 Aguatic Chronic 4 Aquatic Chronic 5 Aquatic Chronic 6 Aquatic Chronic 7 Aquatic Chronic 7 Aquatic Chronic 8 Aquatic Chronic 9 Aquatic Chronic 1 Aquatic Chronic 1 Aquatic Chronic 10 Aquatic Chronic 10 Aquatic Chronic 10 Category 1 Serious EYE DAMAGE/ EYE IRRITATION - Category 1 Skin Corr. 18 Skin Sens. 1 Skin Sens. 1A Skin Sens Chracet Orgi
Date of printing	: 18, Jan, 2024.
Date of issue/ Date of revision	: 18, Jan, 2024
Date of previous issue	: 16, Nov, 2023
	: If there is no previous validation date please contact your supplier for more information.
Version	: 5

Notice to reader

In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.

SUMI(s) will be added to the SDS for products if both the following conditions are met:

• The product is classified as hazardous for health

• The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided

SECTION 16: Other information

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country. federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

21/21