

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

1.1. Product identifier

Product form : Mixture
 Name : Set K-Ink Gj4-Np Black, 4X100 Cm³
 Product code : 083815
 Synonyms : SET K-INKT GJ4-NP Zw 4 x 100 cm³; Set K-Tinte Gj4-Np Schwarz 4X100 Cm³;
 Set K-Encre Gj4-Np Noir 4X100 Cm³

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

1.2.1. Relevant identified uses

Main use category : Professional use
 Industrial/Professional use spec : Industrial
 For professional use only
 Use of the substance/mixture : Ink for use in inkjet printing system to apply codes and marked to primary and secondary packaging. Not intended for incidental food contact. Use only where an approved food barrier present. This product has been approved by NSF for use in food facilities under Category Code (P1). Not for use as direct or indirect food contact.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BV. Korthofah
 (Kortho Coding & Marking)
 Lageweg 39
 NL 2222 AG Katwijk Nederland
 T: +31 (0) 71 40 60 480
 E-mail: export@kortho.nl

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
IRELAND (REPUBLIC OF)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
UNITED KINGDOM	National Poisons Information Service (NHS Direct)	http://www.npis.org	111 (England & Wales only) or 112 (EU) or 08454 24 24 24 (Scotland)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 H315
 Eye Irrit. 2 H319
 Repr. 1B H360
 STOT SE 3 H335
 Aquatic Chronic 3 H412

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Repr.Cat.2; R61
 Xi; R36/37/38
 R52/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

GHS08

Signal word (CLP) :

Danger

Hazardous ingredients :

N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone

Hazard statements (CLP) :

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H360 - May damage fertility or the unborn child
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) :

P201 - Obtain special instructions before use
P261 - Avoid breathing fume, vapours, mist, spray
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
polyvinylpyrrolidone	(CAS No) 9003-39-8 (EC no) 201-800-4	0-10	Not classified
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone substance listed as REACH Candidate (1-Methyl-2-pyrrolidone)	(CAS No) 872-50-4 (EC no) 212-828-1 (EC index no) 606-021-00-7 (REACH-no) 01-2119472430-46-XXXX	0-10	Repr.Cat.2; R61 Xi; R36/37/38
glycerol	(CAS No) 56-81-5 (EC no) 200-289-5	0-5	Not classified
sodium bis[1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 57206-81-2 (EC no) 260-616-2	0-5	N; R51/53 Xi; R36
sodium bis[1-[[2-hydroxy-3-nitro-5-tert-pentylphenyl]azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 57206-83-4 (EC no) 260-617-8	0-5	N; R51/53
sodium bis[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 64611-73-0 (EC no) 264-966-7	0-5	N; R51/53 Xi; R36
sodium [1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-)] [1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 59307-49-2 (EC no) 261-691-4	0-5	N; R51/53 Xi; R36

Name	Product identifier	Specific concentration limits
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone	(CAS No) 872-50-4 (EC no) 212-828-1 (EC index no) 606-021-00-7 (REACH-no) 01-2119472430-46-XXXX	(C >= 5) Repr. Cat. 2;R61 (C >= 10) Xi;R36/37/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
polyvinylpyrrolidone	(CAS No) 9003-39-8 (EC no) 201-800-4	0-10	Not classified
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone substance listed as REACH Candidate (1-Methyl-2-pyrrolidone)	(CAS No) 872-50-4 (EC no) 212-828-1 (EC index no) 606-021-00-7 (REACH-no) 01-2119472430-46-XXXX	0-10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360D STOT SE 3, H335
glycerol	(CAS No) 56-81-5 (EC no) 200-289-5	0-5	Not classified
sodium bis[1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 57206-81-2 (EC no) 260-616-2	0-5	Eye Irrit. 2, H319 Aquatic Chronic 3, H412

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium bis[1-[(2-hydroxy-3-nitro-5-tert-pentylphenyl)azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 57206-83-4 (EC no) 260-617-8	0-5	Aquatic Chronic 2, H411
sodium bis[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 64611-73-0 (EC no) 264-966-7	0-5	Eye Irrit. 2, H319 Aquatic Chronic 3, H412
sodium [1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-)]1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	(CAS No) 59307-49-2 (EC no) 261-691-4	0-5	Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Name	Product identifier	Specific concentration limits	
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone	(CAS No) 872-50-4 (EC no) 212-828-1 (EC index no) 606-021-00-7 (REACH-no) 01-2119472430-46-XXXX	(C >= 5) Repr. 1B, H360D (C >= 10) STOT SE 3, H335	

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell. Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: May damage fertility or the unborn child.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if substance enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use only outdoors or in a well-ventilated area. Avoid breathing fume, Vapours.

Hygiene measures : Wash Skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep container closed when not in use. Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat and ignition sources.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

polyvinylpyrrolidone (9003-39-8)		
Belgium	Limit value (mg/m ³)	3 mg/m ³
France	VME (mg/m ³)	Poussières réputées sans effet spécifique, 10 mg/m ³ ; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante; Poussières réputées sans effet spécifique, fraction; 5 mg/m ³ ; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	4 mg/m ³
glycerol (56-81-5)		
Belgium	Limit value (mg/m ³)	10 mg/m ³
France	VME (mg/m ³)	Glycérine (aérosols de), 10 mg/m ³ ; France; Time-weighted average exposure limit 8 h; VL: Valeur non réglementaire indicative
Greece	OEL TWA (mg/m ³)	10 mg/m ³
Italy - Portugal - USA ACGIH	Remark (ACGIH)	URT irr
Switzerland	VLE (mg/m ³)	100 mg/m ³
Switzerland	VME (mg/m ³)	50 mg/m ³
Switzerland	Remark (CH)	4x15
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³
Czech Republic	Expoziční limity (PEL) (mg/m ³)	10 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	2,4 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	15 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (ppm)	3,7 ppm
Finland	HTP-arvo (8h) (mg/m ³)	20 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³
Poland	NDS (mg/m ³)	10 mg/m ³
Australia	TWA (mg/m ³)	10 mg/m ³
Australia	Remark (AU)	(a)
Portugal	OEL TWA (mg/m ³)	10 mg/m ³
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)		
EU	IOELV TWA (mg/m ³)	40 mg/m ³

polyvinylpyrrolidone (9003-39-8)		
EU	IOELV TWA (ppm)	10 ppm
EU	IOELV STEL (mg/m ³)	80 mg/m ³
EU	IOELV STEL (ppm)	20 ppm
EU	Notes	skin
Austria	MAK (mg/m ³)	40 mg/m ³
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m ³)	80 mg/m ³
Austria	MAK Short time value (ppm)	20 ppm
Austria	Remark (AT)	H,Sh
Belgium	Limit value (mg/m ³)	40 mg/m ³
Belgium	Limit value (ppm)	10 ppm
Belgium	Short time value (mg/m ³)	80 mg/m ³
Belgium	Short time value (ppm)	20 ppm
Belgium	Remark (BE)	D
France	VLE (mg/m ³)	N-méthyl-2-pyrrolidone,80 mg/m ³ ; France; Short time value; VRI: Valeur réglementaire indicative
France	VLE (ppm)	N-méthyl-2-pyrrolidone,20 ppm; France; Short time value; VRI: Valeur réglementaire indicative
France	VME (mg/m ³)	N-méthyl-2-pyrrolidone,40 mg/m ³ ; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative
France	VME (ppm)	N-méthyl-2-pyrrolidone,10 ppm; France; Time-weighted average exposure limit 8 h; VRI: Valeur réglementaire indicative
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	82 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	20 ppm
Germany	Remark (TRGS 900)	EU,DFG,AGS,H,Y,19
Greece	OEL TWA (mg/m ³)	400 mg/m ³
Greece	OEL TWA (ppm)	100 ppm
Switzerland	VLE (mg/m ³)	160 mg/m ³
Switzerland	VLE (ppm)	40 ppm
Switzerland	VME (mg/m ³)	80 mg/m ³
Switzerland	VME (ppm)	20 ppm
Switzerland	Remark (CH)	4x15
Netherlands	Grenswaarde TGG 8H (mg/m ³)	40 mg/m ³
Netherlands	Grenswaarde TGG 8H (ppm)	N-Methyl-2-pyrrolidon,9.72 ppm; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	80 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (ppm)	N-Methyl-2-pyrrolidon,19.44 ppm; Netherlands; Short time value; Public occupational exposure limit value
Netherlands	Remark (MAC)	H
Denmark	Grænseværdie (langvarig) (mg/m ³)	20 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	5 ppm
Finland	HTP-arvo (8h) (mg/m ³)	40 mg/m ³
Finland	HTP-arvo (8h) (ppm)	10 ppm
Finland	HTP-arvo (15 min)	80 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	20 ppm
Hungary	AK-érték	40 mg/m ³
Hungary	CK-érték	80 mg/m ³
Hungary	Megjegyzések (HU)	b; EU4
Ireland	OEL (8 hours ref) (mg/m ³)	40 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	10 ppm
Ireland	OEL (15 min ref) (ppm)	20 ppm
Ireland	Notes (IE)	Sk, IOELV

polyvinylpyrrolidone (9003-39-8)		
Lithuania	IPRV (mg/m ³)	40 mg/m ³
Lithuania	IPRV (ppm)	10 ppm
Lithuania	TPRV (mg/m ³)	80 mg/m ³
Lithuania	TPRV (ppm)	20 ppm
Lithuania	Remark (LT)	RO
Norway	Gjennomsnittsverdier (AN) (mg/m ³)	20 mg/m ³
Norway	Gjennomsnittsverdier (AN) (ppm)	5 ppm
Norway	Merknader (NO)	H R
Poland	NDS (mg/m ³)	40 mg/m ³
Poland	NDSch (mg/m ³)	80 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	200 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	300 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	75 ppm
Australia	TWA (mg/m ³)	103 mg/m ³
Australia	TWA (ppm)	25 ppm
Australia	STEL (mg/m ³)	309 mg/m ³
Australia	STEL (ppm)	75 ppm

8.2. Exposure controls

Appropriate engineering controls

: Provide adequate general and local exhaust ventilation.

Personal protective equipment

: Protective clothing. Protective goggles. Gloves.



Hand protection

: Wear protective gloves.

Eye protection

: Chemical goggles or safety glasses.

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: Wear appropriate mask.

Other information

: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Black.
Odour	: mild. distinctive.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 210 - 215 °C
Flash point	: > 200 °F
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1,05 - 1,15 g/cm ³

Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: 90 - 93 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
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polyvinylpyrrolidone (9003-39-8)	
LD50 oral rat	100000 mg/kg (Rat)
LD50 dermal rat	> 12000 mg/kg (Rat)
ATE CLP (oral)	100000,000 mg/kg bodyweight
glycerol (56-81-5)	
LD50 oral rat	27200 mg/kg (Rat; Experimental value)
LC50 inhalation rat (mg/l)	> 2,75 mg/l/4h (Rat; Experimental value)
ATE CLP (oral)	27200,000 mg/kg bodyweight
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	3914 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 4150 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	7000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	8000 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >5000 mg/kg bodyweight; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	> 5,1 mg/l/4h (Rat; Experimental value)
ATE CLP (oral)	3914,000 mg/kg bodyweight
ATE CLP (dermal)	7000,000 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation. Causes skin irritation
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met

Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

polyvinylpyrrolidone (9003-39-8)	
LC50 fishes 1	> 10000 mg/l (96 h; Leuciscus idus)
glycerol (56-81-5)	
LC50 fishes 1	54000 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna; Locomotor effect)
LC50 fish 2	> 1000 mg/l (96 h; Pisces)
TLM fish 1	> 1000 ppm (96 h; Pisces)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	> 10000 mg/l (8 days; Scenedesmus quadricauda; Turbid water)
Threshold limit algae 2	2900 mg/l (192 h; Microcystis aeruginosa; Toxicity test)
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
LC50 fishes 1	3048 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Cool water)
EC50 Daphnia 1	4897 mg/l (48 h; Daphnia magna)
LC50 fish 2	832 mg/l (96 h; Lepomis macrochirus; Warm water)
EC50 Daphnia 2	4655 mg/l (Gammarus sp.)
Threshold limit algae 1	> 500 mg/l (Scenedesmus subspicatus)
Threshold limit algae 2	600,5 mg/l (72 h; Desmodesmus subspicatus; Growth rate)

12.2. Persistence and degradability

SI-PZ4778 Black	
Persistence and degradability	Not established.
polyvinylpyrrolidone (9003-39-8)	
Persistence and degradability	Not readily biodegradable in water.
glycerol (56-81-5)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0,87 g O ₂ /g substance
Chemical oxygen demand (COD)	1,16 g O ₂ /g substance
ThOD	1,217 g O ₂ /g substance
BOD (% of ThOD)	0,71 % ThOD
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
Persistence and degradability	Readily biodegradable in water. Inherently biodegradable. Biodegradable in soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	1,07 g O ₂ /g substance
Chemical oxygen demand (COD)	1,56 g O ₂ /g substance
ThOD	1,9 g O ₂ /g substance
BOD (% of ThOD)	0,56 % ThOD

12.3. Bioaccumulative potential

SI-PZ4778 Black	
Bioaccumulative potential	Not established.
polyvinylpyrrolidone (9003-39-8)	
Bioaccumulative potential	Bioaccumulation: No data available.

glycerol (56-81-5)	
Log Pow	-1,75 (Experimental value; Equivalent or similar to OECD 107)
Bioaccumulative potential	Bioaccumulation: Not applicable.
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
Log Pow	-0,73 - -0,46 (Experimental value)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

glycerol (56-81-5)	
Surface tension	0,0634 N/m (20 °C; 1000 g/l)
N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
Surface tension	0,407 N/m

12.5. Results of PBT and vPvB assessment

N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone (872-50-4)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a licensed waste centre in accordance with local/regional/national/international regulations.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 20 01 27* - paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not dangerous goods in terms of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	SI-PZ4778 Black
3.c. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	sodium bis[1-[[[2-hydroxy-3-nitro-5-tert-pentylphenyl]azo]-2-naphtholato(2-)]chromate(1-)
30. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Toxic to Reproduction category 1A or 1B (Table 3.1) or Toxic to Reproduction category 1 or 2 (Table 3.2) and listed as follows: Reproductive toxicant category 1A adverse effects on sexual function and fertility or on development (Table 3.1) or Reproductive toxicant category 1 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 5 Reproductive toxicant category 1B adverse effects on sexual function and fertility or on development (Table 3.1) or Reproductive toxicant category 2 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 6	N-methyl-2-pyrrolidone, 1-methyl-2-pyrrolidone

Contains substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: 1-Methyl-2-pyrrolidone (EC 212-828-1, CAS 872-50-4)

Contains no REACH Annex XIV substances

VOC content : 90 - 93 %

15.1.2. National regulations

Water hazard class (WGK) : 3 - severe hazard to waters

WGK remark : Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

Regional legislation : Not listed on the United States TSCA (Toxic Substances Control Act) inventory.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Other information : None.

Full text of R-, H- and EUH-phrases:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 1B	Reproductive toxicity, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
H360D	May damage the unborn child
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
R36	Irritating to eyes
R36/37/38	Irritating to eyes, respiratory system and skin
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R61	May cause harm to the unborn child
N	Dangerous for the environment
Xi	Irritant

SDS EU_NSC

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