Ti-12 Non-Porous Glass-Metal-Plastic Black 36ml

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 8/19/2024 Version: 1.0

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	Ti-12 Non-Porous Glass-Metal-Plastic Black 36ml
UFI	:	46W6-F399-900F-VNTN
Product code	:	036075
Type of product	:	Inks
Product group	:	Trade product
Other means of identification	:	Thermal Ink Jet Printing Iink

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

Relevant identified uses

Main use category	:	Professional use,Industrial
Use of the substance/mixture	:	Ink and toners

Title	Life cycle stage	Use descriptors
Thermal Ink Jet Printing Ink	Industrial, Professional	SU0, PC18, PROC0

Full text of use descriptors: see section 16

1.3. Details of the supplier of the safety data sheet

Distributor
Korthofah B.V.
Lageweg 39
2222 AG Katwijk ZH
The Netherlands
T +31 714 060 480
export@kortho.nl, https://www.kortho.com

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 2	H225
Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 3	H311
Acute toxicity (inhalation:dust,mist) Category 4	H332
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity – single exposure, Category 1	H370
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

Full text of H- and EUH-statements: 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) :

GHS02 GHS06 GHS08

Signal word (CLP) : Danger

Contains : methanol

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.
H302+H332 - Harmful if swallowed or if inhaled.
H311 - Toxic in contact with skin.
H319 - Causes serious eye irritation.
H370 - Causes damage to organs (central nervous system).
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P235 - Keep cool.
P280 - Wear protective clothing, eye protection, face protection.
P308+P311 - IF exposed or concerned: Call a POISON CENTER or doctor.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P403+P235 - Store in a well-ventilated place. Keep cool.

Labelling according to: exemption for packages of a capacity of 125ml or less

Hazard pictograms (CLP) :

GHS02 GHS06 GHS08

Signal word (CLP) : Danger

Hazardous ingredients : methanol

Hazard statements (CLP) : H311 - Toxic in contact with skin.
H370 - Causes damage to organs (central nervous system).
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P280 - Wear protective clothing, eye protection, face protection.
P308+P311 - IF exposed or concerned: Call a POISON CENTER or doctor.
P321 - Specific treatment (see supplemental first aid instruction on this label).

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	methanol (67-56-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	methanol (67-56-1)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Product name	Product identifier	% w/w (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol; ethyl alcohol substance with national workplace exposure limit(s) (GB)	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610-43	30 – 50	Flam. Liq. 2, H225 Eye Irrit. 2, H319
methanol substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44	30 – 50	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Oral), H301 STOT SE 1, H370
butanone; ethyl methyl ketone substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 78-93-3 EC-No.: 201-159-0 EC Index-No.: 606-002-00-3 REACH-no: 01-2119457290-43	5 – 10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
2:1 Chromium complex Azo dye Black	CAS-No.: 117527-94-3 EC-No.: 403-720-7 EC Index-No.: 611-044-00-0	5 – 10	Aquatic Chronic 2, H411

Specific concentration limits:

Product name	Product identifier	Specific concentration limits (% w/w (% w/w))
methanol	CAS-No.: 67-56-1 EC-No.: 200-659-6 EC Index-No.: 603-001-00-X REACH-no: 01-2119433307-44	(3 ≤ C < 10) STOT SE 2; H371 (10 ≤ C ≤ 100) STOT SE 1; H370

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In case of doubt or persistent symptoms, consult always a physician.

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after skin contact : Remove and wash contaminated clothing before re-use. Wash skin with mild soap and water.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water (for at least 15 minutes). Rinse immediately with plenty of water, also under the eyelids. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth out with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, seek medical advice immediately and show this container or label.

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

Symptoms/effects after inhalation : Harmful if inhaled.

Symptoms/effects after skin contact : Harmful in contact with skin.

Symptoms/effects after eye contact : Severe eye irritation.

Symptoms/effects after ingestion : Harmful if swallowed.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Dry chemical, CO2, or water spray or regular foam. Making extinguishing agents environment-friendly.
Unsuitable extinguishing media	:	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Highly flammable liquid and vapour.
Explosion hazard	:	No direct explosion hazard.
Reactivity in case of fire	:	Combustion produces irritating gases.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	:	Cool tanks/drums with water spray/remove them into safety.
Firefighting instructions	:	Notify authorities if liquid enters sewers or public waters.
Protection during firefighting	:	Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	:	Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Wear personal protective equipment. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

For non-emergency personnel

Protective equipment	:	Wear recommended personal protective equipment.
Emergency procedures	:	Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Do not breathe dust, fume, gas, mist, spray, vapours. Avoid contact with skin, eyes and clothing.

For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Do not dispose of fire-fighting water in the environment. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	:	Take up liquid spill into absorbent material. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Notify authorities if product enters sewers or public waters.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	:	Not expected to present a significant hazard under anticipated conditions of normal use. Avoid contact with skin and eyes. Avoid inhalation of vapours.
Precautions for safe handling	:	Draag geschikte beschermende kleding. Ensure good ventilation of the work station.
Hygiene measures	:	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Protect from heat and direct sunlight. Keep only in the original container in a cool, well-ventilated place.
Incompatible products	:	Strong oxidizing agents. combustible materials.
Incompatible materials	:	Strong oxidizing agents. combustible materials.
Packaging materials	:	Store always product in container of same material as original container.

7.3. Specific end use(s)

No supplementary information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

ethanol; ethyl alcohol (64-17-5)	
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA)	1920 mg/m³
	1000 ppm
WEL STEL (OEL STEL)	5760 mg/m³ (calculated)
	3000 ppm (calculated)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

methanol (67-56-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methanol
IOEL TWA	260 mg/m³
	200 ppm
Remark	skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	Methanol
WEL TWA (OEL TWA)	266 mg/m³
	200 ppm
WEL STEL (OEL STEL)	333 mg/m³
	250 ppm

methanol (67-56-1)	
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40. HSE

butanone; ethyl methyl ketone (78-93-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Butanone
IOEL TWA	600 mg/m³
	200 ppm
IOEL STEL	900 mg/m³
	300 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Butan-2-one (methyl ethyl ketone)
WEL TWA (OEL TWA)	600 mg/m³
	200 ppm
WEL STEL (OEL STEL)	899 mg/m³
	300 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Butan-2-one (methyl ethyl ketone)
BMGV	70 µmol/l Parameter: butan-2-one - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Personal protection equipment

Personal protective equipment:
Safety glasses. Gloves. Protective clothing.
Personal protective equipment symbol(s):

Eye and face protection

Eye protection:
Wear eye glasses with side protection according to EN 166. Safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
full face mask	Droplet	With side shields	EN 166

Skin protection

Skin and body protection:
Wear suitable protective clothing. Choose protective clothing according to the type, quantity and concentration of hazardous substances, and the specific workplace. EN 13034

Skin and body protection	
Type	**Standard**
Lab coat	EN 1149-1

Hand protection:
Wear suitable gloves tested to EN374. Recommendation: Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber (>=0.4 mm), butyl rubber (>=0.7 mm) and others. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Reusable gloves	Butyl rubber		> 0.4	3 (> 0.65)	EN ISO 374

Respiratory protection

Respiratory protection:
In the event of exposure to high concentrations of dust or vapour: CE-approved respirator for organic vapors and solvents (type AX, brown).

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Full face mask	Type A - High-boiling (>65 °C) organic compounds	If conc. in air > exposure limit	EN 14387

Thermal hazards

Thermal hazard protection:
No additional information available.

Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.
Other information:
If on skin, take off contaminated clothing. Keep away from food, drink and animal feedingstuffs. Avoid contact with skin and eyes. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Black.
Odour	:	slight.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	> 70 °C
Flammability	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	< 23 °C Closed cup
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available

pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Soluble in ethanol. Soluble in methanol.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable in use and storage conditions as recommended in item 7.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. – No smoking. None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Polymerization catalysts, such as peroxides or azo compounds, strong acids, bases and oxidizing agents. No additional information available.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2). Carbon dioxide. nitrogen oxides. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Toxic in contact with skin.
Acute toxicity (inhalation)	:	Inhalation:dust,mist: Harmful if inhaled.

Ti-12 Non-Porous Glass-Metal-Plastic Black 36ml	
ATE oral	333.333 mg/kg bodyweight
ATE dermal	1000 mg/kg bodyweight
ATE dust/mist	1.667 mg/l/4h

ethanol; ethyl alcohol (64-17-5)	
LD50 oral rat	1187 – 15010 mg/kg bodyweight Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 9720 - 11380
LD50 oral	8300 mg/kg bodyweight Animal: mouse
LD50 dermal rabbit	> 20000 mg/kg (Symptoms: Redness, pain)
LD50 dermal	15800 mg/kg bodyweight

ethanol; ethyl alcohol (64-17-5)	
LC50 Inhalation - Rat	124.7 mg/l/4h (Symptoms include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness)
ATE vapours	124.7 mg/l/4h
ATE dust/mist	124.7 mg/l/4h

methanol (67-56-1)	
LD50 oral rat	1187 mg/kg bodyweight
LD50 dermal	17100 mg/kg
LC50 Inhalation - Rat	43.7 mg/l/4h
ATE oral	100 mg/kg bodyweight
ATE dermal	300 mg/kg bodyweight
ATE gases	700 ppmv/4h
ATE vapours	3 mg/l/4h
ATE dust/mist	0.5 mg/l/4h

butanone; ethyl methyl ketone (78-93-3)	
LD50 oral	2737 mg/kg bodyweight
LD50 dermal rabbit	10 ml/kg
LD50 dermal	6400 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 5000 mg/l
ATE dermal	8054 mg/kg bodyweight

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

ethanol; ethyl alcohol (64-17-5)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Not classified

ethanol; ethyl alcohol (64-17-5)	
NOAEL (animal/male, F0/P)	13800 mg/kg bodyweight

methanol (67-56-1)	
NOAEL (animal/male, F0/P)	< 1000 mg/kg bodyweight Animal: mouse, Animal sex: male

STOT-single exposure : Causes damage to organs (central nervous system).

methanol (67-56-1)	
STOT-single exposure	Causes damage to organs.

butanone; ethyl methyl ketone (78-93-3)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

ethanol; ethyl alcohol (64-17-5)	
LOAEL (oral, rat, 90 days)	3200 mg/kg bodyweight
NOAEL (oral, rat, 28 days)	1730 mg/kg bodyweight/day

ethanol; ethyl alcohol (64-17-5)	
NOAEC (inhalation, rat, 28 days)	6.66 mg/l
NOAEL (oral, rat, 90 days)	< 1730 mg/kg bodyweight
NOAEL (subchronic, oral, animal/male, 90 days)	< 9700 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
NOAEL (subchronic, oral, animal/female, 90 days)	> 9400 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)

methanol (67-56-1)	
NOAEC (inhalation, rat, vapour, 90 days)	13.3 mg/l
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	260 – 6660 mg/m³

butanone; ethyl methyl ketone (78-93-3)	
NOAEC (inhalation, rat, gas, 28 days)	14.87 mg/l
NOAEC (subacute, inhalation, 28 days)	< mg/l

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

ethanol; ethyl alcohol (64-17-5)	
LC50 - Fish [1]	14.2 g/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	13000 mg/l (Oncorhynchus mykiss (Rainbow trout))
EC50 - Crustacea [1]	> 10000 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	5012 mg/l Test organisms (species): Waterflea
EC50 - Other aquatic organisms [2]	275 mg/l
EC50 72h - Algae [1]	275 mg/l Chlorella vulgaris
EC50 72h - Algae [2]	1450 Test organisms (species): Microcystis aeruginosa
EC50 96h - Algae [1]	≈ 22000 mg/l
NOEC (chronic)	9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d'
NOEC chronic fish	250 mg/l Danio rerio

methanol (67-56-1)	
LC50 - Fish [1]	15400 mg/l Test organisms (species): Lepomis macrochirus
EC50 96h - Algae [1]	22 g/l
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	446.7 mg/l (28 d)
NOEC chronic crustacea	208 mg/l (21 d)
Threshold limit - Other aquatic organisms [1]	6600 mg/l (16 h; Pseudomonas putida)

methanol (67-56-1)	
Threshold limit - Algae [1]	530 mg/l (192 h; Microcystis aeruginosa)
Threshold limit - Algae [2]	8000 mg/l (168 h; Scenedesmus quadricauda)

butanone; ethyl methyl ketone (78-93-3)	
LC50 - Fish [1]	2993 mg/l
EC50 - Crustacea [1]	308 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	308 mg/l waterflea
EC50 - Other aquatic organisms [2]	1972 mg/l
EC50 72h - Algae [1]	1220 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	1240 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

Ti-12 Non-Porous Glass-Metal-Plastic Black 36ml	
Persistence and degradability	Rapidly degradable

ethanol; ethyl alcohol (64-17-5)	
Persistence and degradability	Readily biodegradable.

methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water, Biodegradable in the soil, Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 – 1.12 g O_2/g substance
Chemical oxygen demand (COD)	1.42 g O_2/g substance
ThOD	1.5 g O_2/g substance
BOD (% of ThOD)	0.8 % ThOD
Biodegradation	1.067 – 1.236 g O_2/g substance

butanone; ethyl methyl ketone (78-93-3)	
Persistence and degradability	Rapidly degradable

2:1 Chromium complex Azo dye Black (117527-94-3)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

ethanol; ethyl alcohol (64-17-5)	
BCF - Fish [1]	3
Partition coefficient n-octanol/water (Log Pow)	-0.32
Bioaccumulative potential	No bioaccumulation.

methanol (67-56-1)	
BCF - Fish [1]	< 10 (72 h; Leuciscus idus)
BCF - Fish [2]	1 (72 h; Cyprinus carpio; Blood)
Partition coefficient n-octanol/water (Log Pow)	-0.77 @ 20°C
Partition coefficient n-octanol/water (Log Kow)	-0.77 @ 20 °C

methanol (67-56-1)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

butanone; ethyl methyl ketone (78-93-3)	
Partition coefficient n-octanol/water (Log Pow)	0.3 @ 40 °C

12.4. Mobility in soil

ethanol; ethyl alcohol (64-17-5)	
Surface tension	0.02339 N/m @ 25 °C
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1

methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	methanol (67-56-1)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	methanol (67-56-1)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecological waste information : Avoid release to the environment.

HP Code : HP3 - “Flammable:”
– flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
– flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
– flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
– flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
– water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
– other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.
HP5 - “Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:” waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
HP6 - “Acute Toxicity:” waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP4 - “Irritant – skin irritation and eye damage:” waste which on application can cause skin irritation or damage to the eye.
HP14 - “Ecotoxic:” waste which presents or may present immediate or delayed risks for one or more sectors of the environment

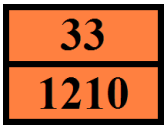
SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1210	UN 1210	UN 1210	UN 1210	UN 1210
14.2. UN proper shipping name				
PRINTING INK / PRINTING INK RELATED MATERIAL	PRINTING INK RELATED MATERIAL	Printing ink related material	PRINTING INK RELATED MATERIAL	PRINTING INK RELATED MATERIAL
Transport document description				
UN 1210 PRINTING INK / PRINTING INK RELATED MATERIAL, 3, II, (D/E)	UN 1210 PRINTING INK RELATED MATERIAL, 3, II	UN 1210 Printing ink related material, 3, II	UN 1210 PRINTING INK RELATED MATERIAL, 3, II	UN 1210 PRINTING INK RELATED MATERIAL, 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-E EmS-No. (Spillage): S-D	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available.				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Special provisions (ADR)	:	163, 367, 640C
Limited quantities (ADR)	:	5l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001
Special packing provisions (ADR)	:	PP1
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1, TP8
Tank code (ADR)	:	L1.5BN
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	2
Special provisions for carriage - Operation (ADR)	:	S2, S20
Hazard identification number (Kemler No.)	:	33
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E
EAC code	:	•3YE

Transport by sea

Special provisions (IMDG)	:	163, 367
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1, TP8
Stowage category (IMDG)	:	B
Properties and observations (IMDG)	:	Fluid or viscous liquid containing colouring matter in solution or suspension. Miscibility with water depends upon the solvent.

Air transport

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A3, A72, A192
ERG code (IATA)	:	3L

Inland waterway transport

Classification code (ADN)	:	F1
Special provisions (ADN)	:	163, 367, 640C
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E2
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	1

Rail transport

Classification code (RID)	:	F1
Special provisions (RID)	:	163, 367, 640C
Limited quantities (RID)	:	5L

Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001
Special packing provisions (RID)	:	PP1
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1, TP8
Tank codes for RID tanks (RID)	:	L1.5BN
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE7
Hazard identification number (RID)	:	33

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	Ti-12 Non-Porous Glass-Metal-Plastic Black 36ml ; ethanol; ethyl alcohol ; butanone; ethyl methyl ketone ; methanol	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 classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	Ti-12 Non-Porous Glass-Metal-Plastic Black 36ml ; ethanol; ethyl alcohol ; butanone; ethyl methyl ketone ; methanol	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 classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	Ti-12 Non-Porous Glass-Metal-Plastic Black 36ml ; 2:1 Chromium complex Azo dye Black	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
69.	methanol	Methanol

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

VOC Directive (2004/42)

Organic solvent : Yes

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Methylethylketone	Butanone	78-93-3	2914 12 00	Category 3		Annex I

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

For the following substances of this mixture a chemical safety assessment has been carried out:

ethanol; ethyl alcohol

butanone; ethyl methyl ketone

SECTION 16: Other information

Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
EC50	Median effective concentration
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs.
H371	May cause damage to organs.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
STOT SE 1	Specific target organ toxicity – single exposure, Category 1
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Full text of use descriptors	
PC18	Ink and Toners
PROC0	Other
SU0	Other

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 2	H225	On basis of test data
Acute Tox. 4 (Oral)	H302	Calculation method
Acute Tox. 3 (Dermal)	H311	Calculation method
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 1	H370	Calculation method
Aquatic Chronic 3	H412	Calculation method

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.