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

1.1. Product identifier

Product form : Mixture

Trade name/designation : Touch-Up Pen - Phantom black

Product code : 92-8M0137092
92-8M0137135
92-8M0133921

Document no. : 766-01-0330S

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

1.2.1. Relevant identified uses

Intended for general public

Main use category : Industrial use,Professional uses,Consumer use

Use of the substance/mixture : Paint

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Brunswick Marine EMEA
Parc industriel de Petit-Rechain, Avenue Mercury 8
4800 Verviers - Belgium
T +32 (0)87 32 32 11
bme.compliance@brunswick.com

1.4. Emergency telephone number

Emergency number : 0032 3 575 55 55
This telephone number is available 24 hours per day, 7 days per week.

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2 H225
STOT SE 3 H336

Full text of H statements : see section 16

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS07

Signal word : Danger

Hazardous ingredients : n-butyl acetate

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.
H336 - May cause drowsiness or dizziness.

Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P271 - Use only outdoors or in a well-ventilated area.
P405 - Store locked up.

Extra phrases : EUH208 - Contains 2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime. May produce an allergic reaction.
EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Other hazards : Vapours can form explosive mixtures with air. Results of PBT and vPvB assessment : Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-butyl acetate	(CAS-No.) 123-86-4 (EC-No.) 204-658-1 (EC Index) 607-025-00-1	20 - 30	Flam. Liq. 3, H226 STOT SE 3, H336
2-methoxy-1-methylethyl acetate substance with a Community workplace exposure limit	(CAS-No.) 108-65-6 (EC-No.) 203-603-9 (EC Index) 607-195-00-7	10 - 20	Flam. Liq. 3, H226
Pentan-2-one	(CAS-No.) 107-87-9 (EC-No.) 203-528-1 (EC Index) -	5 - 10	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT SE 3, H335
1-methoxy-2-propanol; monopropylene glycol methyl ether substance with a Community workplace exposure limit	(CAS-No.) 107-98-2 (EC-No.) 203-539-1 (EC Index) 603-064-00-3	0,1 - 1	Flam. Liq. 3, H226 STOT SE 3, H336
ethylbenzene substance with a Community workplace exposure limit	(CAS-No.) 100-41-4 (EC-No.) 202-849-4 (EC Index) 601-023-00-4	0,1 - 1	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime	(CAS-No.) 96-29-7 (EC-No.) 202-496-6 (EC Index) 616-014-00-0	0,1 - 1	Acute Tox. 4 (Dermal), H312 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice	:	First aider: Pay attention to self-protection. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically.
Inhalation	:	Remove person to fresh air and keep comfortable for breathing. In case of doubt or persistent symptoms, consult always a physician.
Skin contact	:	Take off contaminated clothing. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician.
Eyes contact	:	Rinse immediately carefully and thoroughly with eye-bath or water. In case of doubt or persistent symptoms, consult always a physician.
Ingestion	:	Rinse mouth thoroughly with water. Get medical advice/attention.

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

Inhalation	:	May cause drowsiness or dizziness. The following symptoms may occur: Headache, Nausea, Vomiting.
Skin contact	:	The following symptoms may occur: May cause an allergic skin reaction.
Eyes contact	:	The following symptoms may occur: Irritation.
Ingestion	:	The following symptoms may occur: nausea, vomiting.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	carbon dioxide (CO_2), powder, alcohol-resistant foam, water spray.
Unsuitable extinguishing media	:	Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards	:	Heating causes rise in pressure with risk of bursting. Extremely flammable liquid and vapour. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. Can form explosive mixture with air.
Hazardous decomposition products in case of fire	:	Carbon oxides (CO, CO_2).

5.3. Advice for firefighters

Firefighting instructions	:	Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	:	Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel : Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure equipment is adequately earthed. Use explosion-proof equipment. Use only non-sparking tools.

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Dam up the liquid spill. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). This material and its container must be disposed of in a safe way, and as per local legislation. Cover the spilled liquid product with foam to slow down evaporation.

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

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools.

Hygiene measures : Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10. Bund storage facilities to prevent soil and water pollution in the event of spillage. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible materials : Nitrates.

Packaging materials : Keep only in the original container.

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

n-butyl acetate (123-86-4)		
Austria	MAK (mg/m³)	480 mg/m³
Austria	MAK (ppm)	100 ppm
Austria	MAK Short time value (mg/m³)	480 mg/m³ (all isomers except tert-Butyl acetate)
Austria	MAK Short time value (ppm)	100 ppm (all isomers except tert-Butyl acetate)
Austria	OEL - Ceilings (mg/m³)	480 mg/m³
Austria	OEL - Ceilings (ppm)	100 ppm
Belgium	Limit value (mg/m³)	723 mg/m³
Belgium	Limit value (ppm)	150 ppm
Belgium	Short time value (mg/m³)	964 mg/m³
Belgium	Short time value	200 ppm
Bulgaria	OEL TWA (mg/m³)	710 mg/m³
Bulgaria	OEL STEL (mg/m³)	950 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	724 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	150 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	966 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	200 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	950 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	710 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	150 ppm
Finland	HTP-arvo (8h) (mg/m³)	720 mg/m³
Finland	HTP-arvo (8h) (ppm)	150 ppm
Finland	HTP-arvo (15 min)	960 mg/m³
Finland	HTP-arvo (15 min) (ppm)	200 ppm
France	VME (mg/m³)	710 mg/m³
France	VME (ppm)	150 ppm
France	VLE (mg/m³)	940 mg/m³
France	VLE (ppm)	200 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	300 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	62 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Greece	OEL TWA (mg/m³)	710 mg/m³
Greece	OEL TWA (ppm)	150 ppm
Greece	OEL STEL (mg/m³)	950 mg/m³
Greece	OEL STEL (ppm)	200 ppm
Hungary	AK-érték	950 mg/m³
Hungary	CK-érték	950 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	710 mg/m³
Ireland	OEL (8 hours ref) (ppm)	150 ppm
Ireland	OEL (15 min ref) (mg/m3)	950 mg/m³
Ireland	OEL (15 min ref) (ppm)	200 ppm
Latvia	OEL TWA (mg/m³)	200 mg/m³
Poland	NDS (mg/m³)	200 mg/m³

n-butyl acetate (123-86-4)		
Poland	NDSCh (mg/m³)	950 mg/m³
Portugal	OEL TWA (ppm)	150 ppm
Portugal	OEL STEL (ppm)	200 ppm
Romania	OEL TWA (mg/m³)	715 mg/m³
Romania	OEL TWA (ppm)	150 ppm
Romania	OEL STEL (mg/m³)	950 mg/m³
Romania	OEL STEL (ppm)	200 ppm
Slovakia	NPHV (priemerná) (mg/m³)	480 mg/m³
Slovakia	NPHV (priemerná) (ppm)	100 ppm
Slovakia	NPHV (Hraničná) (mg/m³)	700 mg/m³
Slovenia	OEL TWA (mg/m³)	480 mg/m³
Slovenia	OEL TWA (ppm)	100 ppm
Slovenia	OEL STEL (mg/m³)	480 mg/m³
Slovenia	OEL STEL (ppm)	100 ppm
Spain	VLA-ED (mg/m³)	724 mg/m³
Spain	VLA-ED (ppm)	150 ppm
Spain	VLA-EC (mg/m³)	965 mg/m³
Spain	VLA-EC (ppm)	200 ppm
Sweden	nivågränsvärde (NVG) (mg/m³)	500 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	100 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	700 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	150 ppm
United Kingdom	WEL TWA (mg/m³)	724 mg/m³
United Kingdom	WEL TWA (ppm)	150 ppm
United Kingdom	WEL STEL (mg/m³)	966 mg/m³
United Kingdom	WEL STEL (ppm)	200 ppm
Switzerland	MAK (mg/m³)	480 mg/m³
Switzerland	MAK (ppm)	100 ppm
Switzerland	KZGW (mg/m³)	960 mg/m³
Switzerland	KZGW (ppm)	200 ppm
Australia	TWA (mg/m³)	713 mg/m³
Australia	TWA (ppm)	150 ppm
Australia	STEL (mg/m³)	950 mg/m³
Australia	STEL (ppm)	200 ppm
Canada (Quebec)	VECD (mg/m³)	950 mg/m³
Canada (Quebec)	VECD (ppm)	200 ppm
Canada (Quebec)	VEMP (mg/m³)	713 mg/m³
Canada (Quebec)	VEMP (ppm)	150 ppm
USA - ACGIH	ACGIH TWA (ppm)	50 ppm
USA - ACGIH	ACGIH STEL (ppm)	150 ppm
USA - IDLH	US IDLH (ppm)	1700 ppm (10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	710 mg/m³
USA - NIOSH	NIOSH REL (TWA) (ppm)	150 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m³)	950 mg/m³
USA - NIOSH	NIOSH REL (STEL) (ppm)	200 ppm

n-butyl acetate (123-86-4)		
USA - OSHA	OSHA PEL (TWA) (mg/m³)	710 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	150 ppm

2-methoxy-1-methylethyl acetate (108-65-6)		
EU	IOELV TWA (mg/m³)	275 mg/m³
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m³)	550 mg/m³
EU	IOELV STEL (ppm)	100 ppm
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (mg/m³)	275 mg/m³
Austria	MAK (ppm)	50 ppm
Austria	MAK Short time value (mg/m³)	550 mg/m³
Austria	MAK Short time value (ppm)	100 ppm
Belgium	Limit value (mg/m³)	275 mg/m³
Belgium	Limit value (ppm)	50 ppm
Belgium	Short time value (mg/m³)	550 mg/m³
Belgium	Short time value	100 ppm
Bulgaria	OEL TWA (mg/m³)	275 mg/m³
Bulgaria	OEL TWA (ppm)	50 ppm
Bulgaria	OEL STEL (mg/m³)	550 mg/m³
Bulgaria	OEL STEL (ppm)	100 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	275 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	50 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	550 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	100 ppm
Cyprus	OEL TWA (mg/m³)	275 mg/m³
Cyprus	OEL TWA (ppm)	50 ppm
Cyprus	OEL STEL (mg/m³)	550 mg/m³
Cyprus	OEL STEL (ppm)	100 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	270 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	275 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Estonia	OEL TWA (mg/m³)	275 mg/m³
Estonia	OEL TWA (ppm)	50 ppm
Estonia	OEL STEL (mg/m³)	550 mg/m³
Estonia	OEL STEL (ppm)	100 ppm
Finland	HTP-arvo (8h) (mg/m³)	270 mg/m³
Finland	HTP-arvo (8h) (ppm)	50 ppm
Finland	HTP-arvo (15 min)	550 mg/m³
Finland	HTP-arvo (15 min) (ppm)	100 ppm
France	VME (mg/m³)	275 mg/m³ (restrictive limit)
France	VME (ppm)	50 ppm (restrictive limit)
France	VLE (mg/m³)	550 mg/m³ (restrictive limit)
France	VLE (ppm)	100 ppm (restrictive limit)

2-methoxy-1-methylethyl acetate (108-65-6)		
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	270 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	50 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar	8h mg/m3	275 mg/m³
Gibraltar	8h ppm	50 ppm
Gibraltar	Short-term mg/m3	550 mg/m³
Gibraltar	Short-term ppm	100 ppm
Greece	OEL TWA (mg/m³)	275 mg/m³
Greece	OEL TWA (ppm)	50 ppm
Greece	OEL STEL (mg/m³)	550 mg/m³
Greece	OEL STEL (ppm)	100 ppm
Hungary	AK-érték	275 mg/m³
Hungary	CK-érték	550 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	275 mg/m³
Ireland	OEL (8 hours ref) (ppm)	50 ppm
Ireland	OEL (15 min ref) (mg/m3)	550 mg/m³
Ireland	OEL (15 min ref) (ppm)	100 ppm
Italy	OEL TWA (mg/m³)	275 mg/m³
Italy	OEL TWA (ppm)	50 ppm
Italy	OEL STEL (mg/m³)	550 mg/m³
Italy	OEL STEL (ppm)	100 ppm
Latvia	OEL TWA (mg/m³)	275 mg/m³
Latvia	OEL TWA (ppm)	50 ppm
Lithuania	IPRV (mg/m³)	250 mg/m³
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m³)	400 mg/m³
Lithuania	TPRV (ppm)	75 ppm
Luxembourg	OEL TWA (mg/m³)	275 mg/m³
Luxembourg	OEL TWA (ppm)	50 ppm
Luxembourg	OEL STEL (mg/m³)	550 mg/m³
Luxembourg	OEL STEL (ppm)	100 ppm
Malta	OEL TWA (mg/m³)	275 mg/m³
Malta	OEL TWA (ppm)	50 ppm
Malta	OEL STEL (mg/m³)	550 mg/m³
Malta	OEL STEL (ppm)	100 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	550 mg/m³
Poland	NDS (mg/m³)	260 mg/m³
Poland	NDSCh (mg/m³)	520 mg/m³
Portugal	OEL TWA (mg/m³)	275 mg/m³ (indicative limit value)
Portugal	OEL TWA (ppm)	50 ppm (indicative limit value)
Portugal	OEL STEL (mg/m³)	550 mg/m³ (indicative limit value)
Portugal	OEL STEL (ppm)	100 ppm (indicative limit value)

2-methoxy-1-methylethyl acetate (108-65-6)		
Romania	OEL TWA (mg/m³)	275 mg/m³
Romania	OEL TWA (ppm)	50 ppm
Romania	OEL STEL (mg/m³)	550 mg/m³
Romania	OEL STEL (ppm)	100 ppm
Slovakia	NPHV (priemerná) (mg/m³)	275 mg/m³
Slovakia	NPHV (priemerná) (ppm)	50 ppm
Slovakia	NPHV (Hraničná) (mg/m³)	550 mg/m³
Slovenia	OEL TWA (mg/m³)	275 mg/m³
Slovenia	OEL TWA (ppm)	50 ppm
Slovenia	OEL STEL (mg/m³)	550 mg/m³
Slovenia	OEL STEL (ppm)	100 ppm
Spain	VLA-ED (mg/m³)	275 mg/m³ (indicative limit value)
Spain	VLA-ED (ppm)	50 ppm (indicative limit value)
Spain	VLA-EC (mg/m³)	550 mg/m³
Spain	VLA-EC (ppm)	100 ppm
Sweden	nivågränsvärde (NVG) (mg/m³)	275 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	550 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	100 ppm
United Kingdom	WEL TWA (mg/m³)	274 mg/m³
United Kingdom	WEL TWA (ppm)	50 ppm
United Kingdom	WEL STEL (mg/m³)	548 mg/m³
United Kingdom	WEL STEL (ppm)	100 ppm
Norway	Grenseverdier (AN) (mg/m³)	270 mg/m³
Norway	Grenseverdier (AN) (ppm)	50 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	337,5 mg/m³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	75 ppm (value calculated)
Switzerland	MAK (mg/m³)	275 mg/m³
Switzerland	MAK (ppm)	50 ppm
Switzerland	KZGW (mg/m³)	275 mg/m³
Switzerland	KZGW (ppm)	50 ppm
Australia	TWA (mg/m³)	274 mg/m³
Australia	TWA (ppm)	50 ppm
Australia	STEL (mg/m³)	548 mg/m³
Australia	STEL (ppm)	100 ppm

Pentan-2-one (107-87-9)		
Austria	MAK (mg/m³)	700 mg/m³
Austria	MAK (ppm)	200 ppm
Austria	MAK Short time value (mg/m³)	1400 mg/m³
Austria	MAK Short time value (ppm)	400 ppm
Belgium	Short time value (mg/m³)	537 mg/m³
Belgium	Short time value	150 ppm
Bulgaria	OEL TWA (mg/m³)	700 mg/m³
Bulgaria	OEL STEL (mg/m³)	875 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	716 mg/m³

Pentan-2-one (107-87-9)		
Croatia	GVI (granična vrijednost izloženosti) (ppm)	200 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	895 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	250 ppm
Denmark	Grænseværdie (langvarig) (mg/m³)	700 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	200 ppm
Finland	HTP-arvo (8h) (mg/m³)	710 mg/m³
Finland	HTP-arvo (8h) (ppm)	200 ppm
Finland	HTP-arvo (15 min)	890 mg/m³
Finland	HTP-arvo (15 min) (ppm)	250 ppm
France	VME (mg/m³)	705 mg/m³
France	VME (ppm)	200 ppm
Greece	OEL TWA (mg/m³)	700 mg/m³
Greece	OEL TWA (ppm)	200 ppm
Greece	OEL STEL (mg/m³)	875 mg/m³
Greece	OEL STEL (ppm)	250 ppm
Ireland	OEL (8 hours ref) (mg/m³)	700 mg/m³
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (mg/m3)	875 mg/m³
Ireland	OEL (15 min ref) (ppm)	250 ppm
Poland	NDS (mg/m³)	100 mg/m³
Poland	NDSCh (mg/m³)	800 mg/m³
Portugal	OEL TWA (ppm)	200 ppm
Portugal	OEL STEL (ppm)	250 ppm
Romania	OEL TWA (mg/m³)	250 mg/m³
Romania	OEL TWA (ppm)	71 ppm
Romania	OEL STEL (mg/m³)	300 mg/m³
Romania	OEL STEL (ppm)	85 ppm
Slovenia	OEL TWA (mg/m³)	710 mg/m³
Slovenia	OEL TWA (ppm)	200 ppm
Slovenia	OEL STEL (mg/m³)	2840 mg/m³
Slovenia	OEL STEL (ppm)	800 ppm
Spain	VLA-ED (mg/m³)	715 mg/m³
Spain	VLA-ED (ppm)	200 ppm
Spain	VLA-EC (mg/m³)	894 mg/m³
Spain	VLA-EC (ppm)	250 ppm
United Kingdom	WEL TWA (mg/m³)	716 mg/m³
United Kingdom	WEL TWA (ppm)	200 ppm
United Kingdom	WEL STEL (mg/m³)	895 mg/m³
United Kingdom	WEL STEL (ppm)	250 ppm
Norway	Grenseverdier (AN) (mg/m³)	260 mg/m³ (Referanser (lover/forskrifter): FOR-2011-12-06 nr 1358 Forskrift om tiltaks-og grenseverdier (sist endret gjennom FOR-2O16-12-22 nr 1860)).

Pentan-2-one (107-87-9)		
Norway	Grenseverdier (AN) (ppm)	75 ppm (Referanser (lover/forskrifter): FOR-2011-12-06 nr 1358 Forskrift om tiltaks-og grenseverdier (sist endret gjennom FOR-2O16-12-22 nr 1860)).
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	325 mg/m³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	112,5 ppm (value calculated)
Switzerland	MAK (mg/m³)	700 mg/m³
Switzerland	MAK (ppm)	200 ppm
Switzerland	KZGW (mg/m³)	1400 mg/m³
Switzerland	KZGW (ppm)	400 ppm
Australia	TWA (mg/m³)	705 mg/m³
Australia	TWA (ppm)	200 ppm
Australia	STEL (mg/m³)	881 mg/m³
Australia	STEL (ppm)	250 ppm
Canada (Quebec)	VEMP (mg/m³)	530 mg/m³
Canada (Quebec)	VEMP (ppm)	150 ppm
USA - ACGIH	ACGIH STEL (ppm)	150 ppm
USA - IDLH	US IDLH (ppm)	1500 ppm
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	530 mg/m³
USA - NIOSH	NIOSH REL (TWA) (ppm)	150 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m³)	700 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	200 ppm

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)		
EU	IOELV TWA (mg/m³)	375 mg/m³
EU	IOELV TWA (ppm)	100 ppm
EU	IOELV STEL (mg/m³)	568 mg/m³
EU	IOELV STEL (ppm)	150 ppm
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (mg/m³)	187 mg/m³
Austria	MAK (ppm)	50 ppm
Austria	MAK Short time value (mg/m³)	187 mg/m³
Austria	MAK Short time value (ppm)	50 ppm
Austria	OEL - Ceilings (mg/m³)	187 mg/m³
Austria	OEL - Ceilings (ppm)	50 ppm
Belgium	Limit value (mg/m³)	375 mg/m³
Belgium	Limit value (ppm)	100 ppm
Belgium	Short time value (mg/m³)	568 mg/m³
Belgium	Short time value	150 ppm
Bulgaria	OEL TWA (mg/m³)	375 mg/m³
Bulgaria	OEL TWA (ppm)	100 ppm
Bulgaria	OEL STEL (mg/m³)	568 mg/m³
Bulgaria	OEL STEL (ppm)	150 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	375 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	100 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	568 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	150 ppm

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)		
Cyprus	OEL TWA (mg/m³)	375 mg/m³
Cyprus	OEL TWA (ppm)	100 ppm
Cyprus	OEL STEL (mg/m³)	568 mg/m³
Cyprus	OEL STEL (ppm)	150 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	270 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	185 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Estonia	OEL TWA (mg/m³)	375 mg/m³
Estonia	OEL TWA (ppm)	100 ppm
Estonia	OEL STEL (mg/m³)	568 mg/m³
Estonia	OEL STEL (ppm)	150 ppm
Finland	HTP-arvo (8h) (mg/m³)	370 mg/m³
Finland	HTP-arvo (8h) (ppm)	100 ppm
Finland	HTP-arvo (15 min)	560 mg/m³
Finland	HTP-arvo (15 min) (ppm)	150 ppm
France	VME (mg/m³)	188 mg/m³ (restrictive limit)
France	VME (ppm)	50 ppm (restrictive limit)
France	VLE (mg/m³)	375 mg/m³ (restrictive limit)
France	VLE (ppm)	100 ppm (restrictive limit)
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	370 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	100 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 903 Biological limit value	15 mg/l Parameter: 1-Methoxypropan-2-ol - Medium: urine - Sampling time: end of shift
Gibraltar	8h mg/m3	375 mg/m³
Gibraltar	8h ppm	100 ppm
Gibraltar	Short-term mg/m3	568 mg/m³
Gibraltar	Short-term ppm	150 ppm
Greece	OEL TWA (mg/m³)	360 mg/m³
Greece	OEL TWA (ppm)	100 ppm
Greece	OEL STEL (mg/m³)	1080 mg/m³
Greece	OEL STEL (ppm)	300 ppm
Hungary	AK-érték	375 mg/m³
Hungary	CK-érték	568 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	375 mg/m³
Ireland	OEL (8 hours ref) (ppm)	100 ppm
Ireland	OEL (15 min ref) (mg/m3)	568 mg/m³
Ireland	OEL (15 min ref) (ppm)	150 ppm
Italy	OEL TWA (mg/m³)	375 mg/m³
Italy	OEL TWA (ppm)	100 ppm
Italy	OEL STEL (mg/m³)	568 mg/m³
Italy	OEL STEL (ppm)	150 ppm

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)		
Latvia	OEL TWA (mg/m³)	375 mg/m³
Latvia	OEL TWA (ppm)	100 ppm
Lithuania	IPRV (mg/m³)	190 mg/m³
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m³)	300 mg/m³
Lithuania	TPRV (ppm)	75 ppm
Luxembourg	OEL TWA (mg/m³)	375 mg/m³
Luxembourg	OEL TWA (ppm)	100 ppm
Luxembourg	OEL STEL (mg/m³)	568 mg/m³
Luxembourg	OEL STEL (ppm)	150 ppm
Malta	OEL TWA (mg/m³)	375 mg/m³
Malta	OEL TWA (ppm)	100 ppm
Malta	OEL STEL (mg/m³)	568 mg/m³
Malta	OEL STEL (ppm)	150 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	375 mg/m³
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	563 mg/m³
Poland	NDS (mg/m³)	180 mg/m³
Poland	NDSCh (mg/m³)	360 mg/m³
Portugal	OEL TWA (mg/m³)	375 mg/m³ (indicative limit value)
Portugal	OEL TWA (ppm)	100 ppm (indicative limit value)
Portugal	OEL STEL (mg/m³)	568 mg/m³ (indicative limit value)
Portugal	OEL STEL (ppm)	150 ppm (indicative limit value)
Romania	OEL TWA (mg/m³)	375 mg/m³
Romania	OEL TWA (ppm)	100 ppm
Romania	OEL STEL (mg/m³)	568 mg/m³
Romania	OEL STEL (ppm)	150 ppm
Slovakia	NPHV (priemerná) (mg/m³)	375 mg/m³
Slovakia	NPHV (priemerná) (ppm)	100 ppm
Slovakia	NPHV (Hraničná) (mg/m³)	568 mg/m³
Slovenia	OEL TWA (mg/m³)	375 mg/m³
Slovenia	OEL TWA (ppm)	100 ppm
Slovenia	OEL STEL (mg/m³)	562,5 mg/m³
Slovenia	OEL STEL (ppm)	150 ppm
Spain	VLA-ED (mg/m³)	375 mg/m³ (indicative limit value)
Spain	VLA-ED (ppm)	100 ppm (indicative limit value)
Spain	VLA-EC (mg/m³)	568 mg/m³
Spain	VLA-EC (ppm)	150 ppm
Sweden	nivågränsvärde (NVG) (mg/m³)	190 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	568 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	150 ppm
United Kingdom	WEL TWA (mg/m³)	375 mg/m³
United Kingdom	WEL TWA (ppm)	100 ppm
United Kingdom	WEL STEL (mg/m³)	560 mg/m³

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)		
United Kingdom	WEL STEL (ppm)	150 ppm
Norway	Grenseverdier (AN) (mg/m³)	180 mg/m³
Norway	Grenseverdier (AN) (ppm)	50 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	225 mg/m³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	75 ppm (value calculated)
Switzerland	MAK (mg/m³)	360 mg/m³
Switzerland	MAK (ppm)	100 ppm
Switzerland	KZGW (mg/m³)	720 mg/m³
Switzerland	KZGW (ppm)	200 ppm
Australia	TWA (mg/m³)	369 mg/m³
Australia	TWA (ppm)	100 ppm
Australia	STEL (mg/m³)	553 mg/m³
Australia	STEL (ppm)	150 ppm
Canada (Quebec)	VECD (mg/m³)	553 mg/m³
Canada (Quebec)	VECD (ppm)	150 ppm
Canada (Quebec)	VEMP (mg/m³)	369 mg/m³
Canada (Quebec)	VEMP (ppm)	100 ppm
USA - ACGIH	ACGIH TWA (ppm)	50 ppm
USA - ACGIH	ACGIH STEL (ppm)	100 ppm
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	360 mg/m³
USA - NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m³)	540 mg/m³
USA - NIOSH	NIOSH REL (STEL) (ppm)	150 ppm

ethylbenzene (100-41-4)		
EU	IOELV TWA (mg/m³)	442 mg/m³
EU	IOELV TWA (ppm)	100 ppm
EU	IOELV STEL (mg/m³)	884 mg/m³
EU	IOELV STEL (ppm)	200 ppm
EU	Notes	Possibility of significant uptake through the skin
Austria	MAK (mg/m³)	440 mg/m³
Austria	MAK (ppm)	100 ppm
Austria	MAK Short time value (mg/m³)	880 mg/m³
Austria	MAK Short time value (ppm)	200 ppm
Belgium	Limit value (mg/m³)	442 mg/m³
Belgium	Limit value (ppm)	100 ppm
Belgium	Short time value (mg/m³)	551 mg/m³
Belgium	Short time value	125 ppm
Bulgaria	OEL TWA (mg/m³)	435 mg/m³
Bulgaria	OEL STEL (mg/m³)	545 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	442 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	100 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	884 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	200 ppm
Cyprus	OEL TWA (mg/m³)	442 mg/m³
Cyprus	OEL TWA (ppm)	100 ppm

ethylbenzene (100-41-4)		
Cyprus	OEL STEL (mg/m³)	884 mg/m³
Cyprus	OEL STEL (ppm)	200 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	200 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	217 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Estonia	OEL TWA (mg/m³)	442 mg/m³
Estonia	OEL TWA (ppm)	100 ppm
Estonia	OEL STEL (mg/m³)	884 mg/m³
Estonia	OEL STEL (ppm)	200 ppm
Finland	HTP-arvo (8h) (mg/m³)	220 mg/m³
Finland	HTP-arvo (8h) (ppm)	50 ppm
Finland	HTP-arvo (15 min)	880 mg/m³
Finland	HTP-arvo (15 min) (ppm)	200 ppm
France	VME (mg/m³)	88,4 mg/m³ (restrictive limit)
France	VME (ppm)	20 ppm (restrictive limit)
France	VLE (mg/m³)	442 mg/m³ (restrictive limit)
France	VLE (ppm)	100 ppm (restrictive limit)
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	88 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	20 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 903 Biological limit value	250 mg/g Parameter: Mandelic acid plus Phenylglyoxylic acid; measured as mg/g Creatinine - Medium: urine - Sampling time: end of shift
Gibraltar	8h mg/m3	442 mg/m³
Gibraltar	8h ppm	100 ppm
Gibraltar	Short-term mg/m3	884 mg/m³
Gibraltar	Short-term ppm	200 ppm
Greece	OEL TWA (mg/m³)	435 mg/m³
Greece	OEL TWA (ppm)	100 ppm
Greece	OEL STEL (mg/m³)	545 mg/m³
Greece	OEL STEL (ppm)	125 ppm
Hungary	AK-érték	442 mg/m³
Hungary	CK-érték	884 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	442 mg/m³
Ireland	OEL (8 hours ref) (ppm)	100 ppm
Ireland	OEL (15 min ref) (mg/m3)	884 mg/m³
Ireland	OEL (15 min ref) (ppm)	200 ppm
Italy	OEL TWA (mg/m³)	442 mg/m³
Italy	OEL TWA (ppm)	100 ppm
Italy	OEL STEL (mg/m³)	884 mg/m³
Italy	OEL STEL (ppm)	200 ppm

ethylbenzene (100-41-4)		
Latvia	OEL TWA (mg/m³)	442 mg/m³
Latvia	OEL TWA (ppm)	100 ppm
Lithuania	IPRV (mg/m³)	442 mg/m³
Lithuania	IPRV (ppm)	100 ppm
Lithuania	TPRV (mg/m³)	884 mg/m³
Lithuania	TPRV (ppm)	200 ppm
Luxembourg	OEL TWA (mg/m³)	442 mg/m³
Luxembourg	OEL TWA (ppm)	100 ppm
Luxembourg	OEL STEL (mg/m³)	884 mg/m³
Luxembourg	OEL STEL (ppm)	200 ppm
Malta	OEL TWA (mg/m³)	442 mg/m³
Malta	OEL TWA (ppm)	100 ppm
Malta	OEL STEL (mg/m³)	884 mg/m³
Malta	OEL STEL (ppm)	200 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	215 mg/m³
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	430 mg/m³
Poland	NDS (mg/m³)	200 mg/m³
Poland	NDSCh (mg/m³)	400 mg/m³
Portugal	OEL TWA (mg/m³)	442 mg/m³ (indicative limit value)
Portugal	OEL TWA (ppm)	100 ppm (indicative limit value)
Portugal	OEL STEL (mg/m³)	884 mg/m³ (indicative limit value)
Portugal	OEL STEL (ppm)	200 ppm (indicative limit value)
Romania	OEL TWA (mg/m³)	442 mg/m³
Romania	OEL TWA (ppm)	100 ppm
Romania	OEL STEL (mg/m³)	884 mg/m³
Romania	OEL STEL (ppm)	200 ppm
Slovakia	NPHV (priemerná) (mg/m³)	442 mg/m³
Slovakia	NPHV (priemerná) (ppm)	100 ppm
Slovakia	NPHV (Hraničná) (mg/m³)	884 mg/m³
Slovenia	OEL TWA (mg/m³)	442 mg/m³
Slovenia	OEL TWA (ppm)	100 ppm
Slovenia	OEL STEL (mg/m³)	884 mg/m³
Slovenia	OEL STEL (ppm)	200 ppm
Spain	VLA-ED (mg/m³)	441 mg/m³ (indicative limit value)
Spain	VLA-ED (ppm)	100 ppm (indicative limit value)
Spain	VLA-EC (mg/m³)	884 mg/m³
Spain	VLA-EC (ppm)	200 ppm
Sweden	nivågränsvärde (NVG) (mg/m³)	220 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	50 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	884 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	200 ppm
United Kingdom	WEL TWA (mg/m³)	441 mg/m³
United Kingdom	WEL TWA (ppm)	100 ppm
United Kingdom	WEL STEL (mg/m³)	552 mg/m³

ethylbenzene (100-41-4)		
United Kingdom	WEL STEL (ppm)	125 ppm
Norway	Grenseverdier (AN) (mg/m³)	20 mg/m³
Norway	Grenseverdier (AN) (ppm)	5 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	30 mg/m³ (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	10 ppm (value calculated)
Switzerland	MAK (mg/m³)	220 mg/m³
Switzerland	MAK (ppm)	50 ppm
Switzerland	KZGW (mg/m³)	220 mg/m³
Switzerland	KZGW (ppm)	50 ppm
Australia	TWA (mg/m³)	434 mg/m³
Australia	TWA (ppm)	100 ppm
Australia	STEL (mg/m³)	543 mg/m³
Australia	STEL (ppm)	125 ppm
Canada (Quebec)	VECD (mg/m³)	543 mg/m³
Canada (Quebec)	VECD (ppm)	125 ppm
Canada (Quebec)	VEMP (mg/m³)	434 mg/m³
Canada (Quebec)	VEMP (ppm)	100 ppm
USA - ACGIH	ACGIH TWA (ppm)	20 ppm
USA - IDLH	US IDLH (ppm)	800 ppm (10% LEL)
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	435 mg/m³
USA - NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA - NIOSH	NIOSH REL (STEL) (mg/m³)	545 mg/m³
USA - NIOSH	NIOSH REL (STEL) (ppm)	125 ppm
USA - OSHA	OSHA PEL (TWA) (mg/m³)	435 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	100 ppm

2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)		
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	1 mg/m³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	0,3 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Ireland	OEL (8 hours ref) (mg/m³)	10 mg/m³
Ireland	OEL (8 hours ref) (ppm)	3 ppm
Ireland	OEL (15 min ref) (mg/m3)	33 mg/m³
Ireland	OEL (15 min ref) (ppm)	10 ppm

Additional information : Personal air monitoring :. Room air monitoring. Recommended monitoring procedures

8.2. Exposure controls

Engineering measure(s) : Provide adequate ventilation. Organisational measures to prevent /limit releases, dispersion and exposure. Safe handling: see section 7 . Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharges. Ensure equipment is adequately earthed. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection	:	Wear chemically resistant gloves (tested to EN374) . Suitable material: Nitrile rubber (>0.3mm, BTT: 4h). The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	:	Use suitable eye protection. (EN166):
Body protection	:	Wear suitable protective clothing.
Respiratory protection	:	In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (EN 140). Full face mask (EN 136). Filter type: Ax (EN143). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
Thermal hazard protection	:	Not required for normal conditions of use. Use dedicated equipment.
Environmental exposure controls	:	Avoid release to the environment. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	liquid.
Colour	:	No data available
Odour	:	No data available
Odour threshold	:	No data available
pH	:	Not applicable
Relative evaporation rate (butylacetate=1)	:	No data available
Melting / freezing point	:	-78 °C
Freezing point	:	-78 °C
Initial boiling point and boiling range	:	102,26 °C
Flash point	:	7,8 °C
Auto-ignition temperature	:	425 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not applicable,Liquid,liquid
Vapour pressure	:	15,42 hPa
Vapour density	:	No data available
Relative density	:	No data available
Density	:	0,828 kg/l
Solubility	:	Water: No data available
Partition coefficient n-octanol/water	:	No data available
Kinematic viscosity	:	No data available
Dynamic viscosity	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available 1,4 vol % 8,2 vol %

9.2. Other information

VOC content	:	551,18 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour. Reference to other sections: 10.4 & 10.5.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air. No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Safe handling: see section 7.

10.5. Incompatible materials

Oxidising substances. Nitrates. Safe handling: see section 7.

10.6. Hazardous decomposition products

Reference to other sections: 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

n-butyl acetate (123-86-4)	
LD50/oral/rat	10768 mg/kg
LD50/dermal/rabbit	> 17600 mg/kg
LC50/inhalation/4h/rat (ppm)	390 ppm/4h

2-methoxy-1-methylethyl acetate (108-65-6)	
LD50/oral/rat	8532 mg/kg
LD50/dermal/rabbit	> 5 g/kg

Pentan-2-one (107-87-9)	
LD50/oral/rat	1600 mg/kg
LD50/dermal/rat	6480 mg/kg
LC50/inhalation/4h/rat (ppm)	2000 - 4000 ppm/4h

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
LD50/oral/rat	5000 mg/kg
LD50/dermal/rabbit	13 g/kg
LC50/inhalation/4h/rat (ppm)	10000 ppm/4h

ethylbenzene (100-41-4)	
LD50/oral/rat	3500 mg/kg
LD50/dermal/rabbit	15400 mg/kg
LC50/inhalation/4h/rat	17,4 mg/l/4h

2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)	
LD50/oral/rat	2326 mg/kg
LD50/dermal/rat	> 1000 mg/kg
LD50/dermal/rabbit	1000 - 1800 mg/kg
LC50/inhalation/4h/rat	> 4,83 mg/l/4h

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: Not applicable

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: Not applicable

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	:	Not classified (Based on available data, the classification criteria are not met.)
STOT-single exposure	:	May cause drowsiness or dizziness.
STOT-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.)
Other information	:	Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

n-butyl acetate (123-86-4)	
LC50 fish 1	100 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 fish 2	17 - 19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

2-methoxy-1-methylethyl acetate (108-65-6)	
LC50 fish 1	161 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	> 500 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Pentan-2-one (107-87-9)	
LC50 fish 1	1190 - 1290 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
LC50 fish 1	20,8 g/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	23300 mg/l (Exposure time: 48 h - Species: Daphnia magna)

ethylbenzene (100-41-4)	
LC50 fish 1	11,0 - 18,0 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	1,8 - 2,4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	4,2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])

2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)	
LC50 fish 1	320 - 1000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	> 500 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	760 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [static])

12.2. Persistence and degradability

Touch-Up Pen - Phantom black	
Persistence and degradability	No data available.

n-butyl acetate (123-86-4)	
Biodegradation	83 % (28 days)

12.3. Bioaccumulative potential

Touch-Up Pen - Phantom black	
Partition coefficient n-octanol/water	No data available
Bioaccumulative potential	No data available.

n-butyl acetate (123-86-4)	
Partition coefficient n-octanol/water	1,81 (at 23 °C)

2-methoxy-1-methylethyl acetate (108-65-6)	
Partition coefficient n-octanol/water	0,43

Pentan-2-one (107-87-9)	
Partition coefficient n-octanol/water	0,91

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
BCF fish 1	< 2
Partition coefficient n-octanol/water	-0,437

ethylbenzene (100-41-4)	
BCF fish 1	15
Partition coefficient n-octanol/water	3,2

2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)	
BCF fish 1	0,5 - 5,8
Partition coefficient n-octanol/water	0,65 (at 25 °C)

12.4. Mobility in soil

Touch-Up Pen - Phantom black	
Mobility in soil	No data available

2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (96-29-7)	
Log Koc	0,65

12.5. Results of PBT and vPvB assessment

Touch-Up Pen - Phantom black	
Results of PBT assessment	No data available

12.6. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Avoid release to the environment. Dispose of empty containers and wastes safely. Safe handling: see section 7. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations. Packaging contaminated by the product : Do not pierce or burn, even after use. Never use pressure to empty container.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : This material and its container must be disposed of as hazardous waste
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1263	1263	1263	1263	1263
14.2. UN proper shipping name				
PAINT	PAINT	Paint	PAINT	PAINT
Transport document description				
UN 1263 PAINT, 3, II, (D/E)	UN 1263 PAINT, 3, II	UN 1263 Paint, 3, II	UN 1263 PAINT, 3, II	UN 1263 PAINT, 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3

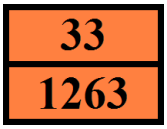
ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

Special precautions for user : No data available

- Overland transport

Classification code (ADR) : F1
Special provisions : 163, 367, 640D, 650
Limited quantities (ADR) : 5l
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02, R001
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, TP28
Tank code (ADR) : LGBF
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 : 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, TP28
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E

Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.

- 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, 640D, 650
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, 640D, 650
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02, R001
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, TP28
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 33

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

Code: IBC : No data available.

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(b) 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	Pentan-2-one - ethylbenzene - 2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	n-butyl acetate - 2-methoxy-1-methylethyl acetate - Pentan-2-one - 1-methoxy-2-propanol; monopropylene glycol methyl ether - ethylbenzene
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	n-butyl acetate - 2-methoxy-1-methylethyl acetate - Pentan-2-one - 1-methoxy-2-propanol; monopropylene glycol methyl ether - ethylbenzene - 2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime
3(a) 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	Touch-Up Pen - Phantom black - n-butyl acetate - 2-methoxy-1-methylethyl acetate - Pentan-2-one - 1-methoxy-2-propanol; monopropylene glycol methyl ether - ethylbenzene

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

does not fall under Directive 2004/42/EC

VOC content : 551,18 g/l

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : 2-methoxy-1-methylethyl acetate,Pentan-2-one,1-methoxy-2-propanol; monopropylene glycol methyl ether are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out

SECTION 16: Other information

Indication of changes:

1	Trade name/designation	Modified	
16	Other information	Modified	

Abbreviations and acronyms:

	ABM = Algemene beoordelingsmethodiek
	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	BTT = Breakthrough time (maximum wearing time)
	DMEL = Derived Minimal Effect level
	DNEL = Derived No Effect Level
	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate
	ErL50 = EL50 in terms of reduction of growth rate
	EWC = European waste catalogue
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LL50 = Median lethal level
	NA = Not applicable
	NOEC = No observed effect concentration
	NOEL: no-observed-effect level
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	N.O.S. = Not Otherwise Specified
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	PNEC = Predicted No Effect Concentration
	Quantitative structure-activity relationship (QSAR)
	STOT = Specific Target Organ Toxicity
	TWA = time weighted average
	VOC = Volatile organic compounds
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Training advice : Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.

Other information : Assessment/classification CLP. Article 9. Calculation method.

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids, Category 2

Flam. Liq. 3	Flammable liquids, Category 3
Skin Sens. 1	Skin sensitisation, hazard category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains 2-butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime. May produce an allergic reaction.

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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