

2-methyl-2,4-pentandiol

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

1.1 Product identifier:

Product name	: 2-methyl-2,4-pentandiol
Synonyms	: 2-methylpentane-2,4-diol; 2,4-pentandiol, 2-methyl-; diolane; pinakon; 2,4-dihydroxy-2-methylpentane; 4-methyl-2,4-pentandiol; isol; alpha,alpha,alpha'-trimethyltrimethylene glycol; hexylene glycol
Registration number REACH	: 01-2119539582-35-0002
Product type REACH	: Substance/mono-constituent
CAS number	: 107-41-5
EC index number	: 603-053-00-3
EC number	: 203-489-0
RTECS number	: SA0810000
Molecular mass	: 118.20 g/mol
Formula	: C6H14O2

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

1.2.1 Relevant identified uses

Softener
Cosmetic product: component
Anti-freezing agent
Solvent
Chemical intermediate

1.2.2 Uses advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the safety data sheet

Monument Chemical bvba
Ketenislaan 3
B-9130 Kallo
Tel: +32 3 570 28 31
Fax: +32 3 575 02 81
mjanssens@monumentchemical.com

Manufacturer of the product

Monument Chemical bvba
Ketenislaan 3
B-9130 Kallo
Tel: +32 3 570 28 31
Fax: +32 3 575 02 81
mjanssens@monumentchemical.com

1.4 Emergency telephone number:

24h/24h (Telephone advice: English, French, German, Dutch):
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation EC No 1272/2008

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Eye Irrit.	category 2	H319: Causes serious eye irritation.
Skin Irrit.	category 2	H315: Causes skin irritation.

2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC

2-methyl-2,4-pentanediol

Classified as dangerous in accordance with the criteria of Directives 67/548/EEC and 1999/45/EC
Xi; R36/38 - Irritating to eyes and skin.

2.2 Label elements:

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



Signal word Warning

H-statements

H319 Causes serious eye irritation.

H315 Causes skin irritation.

P-statements

P280 Wear protective gloves and eye protection/face protection.

P264 Wash hands thoroughly after handling.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards:

CLP

Material presenting a fire hazard

Odour threshold is well above the exposure limit

Narcotic in high concentrations

No certainty about hazards to the foetus

SECTION 3: Composition/information on ingredients

3.1 Substances:

Name (REACH Registration No)	CAS No EC No	Conc. (C)	Classification according to DSD/DPD	Classification according to CLP	Note	Remark
2-methylpentane-2,4-diol (01-2119539582-35)	107-41-5 203-489-0	C>99%	Xi; R36/38	Eye Irrit. 2; H319 Skin Irrit. 2; H315	(1)(2)(8) (10)	Mono-constituent

(1) For R-phrases and H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

(8) Specific concentration limits, see heading 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

3.2 Mixtures:

Not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

After eye contact:

Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

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After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Central nervous system depression. Headache. Dizziness. Coordination disorders. Narcosis. Impaired concentration. Respiratory difficulties.

After skin contact:

Red skin. Tingling/irritation of the skin.

After eye contact:

Irritation of the eye tissue. Inflammation/damage of the eye tissue.

After ingestion:

AFTER ABSORPTION OF HIGH QUANTITIES: Vomiting. Nausea. Disturbances of consciousness.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media:

Water spray. Alcohol-resistant foam. BC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

Container may slop over if solid jet (water/foam) is applied.

5.2 Special hazards arising from the substance or mixture:

Upon combustion: CO and CO₂ are formed.

5.3 Advice for firefighters:

5.3.1 Instructions:

Cool tanks/drums with water spray/remove them into safety.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Face-shield. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Face-shield. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply.

6.3 Methods and material for containment and cleaning up:

Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite or powdered limestone. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4 Reference to other sections:

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards. Keep container tightly closed. Remove contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Safe storage requirements:

Store in a dry area. Ventilation at floor level. Meet the legal requirements. Store at ambient temperature.

7.2.2 Keep away from:

2-methyl-2,4-pentanediol

Heat sources, oxidizing agents, (strong) acids, water/moisture.

7.2.3 Suitable packaging material:

Steel, stainless steel, carbon steel, aluminium, copper, bronze, synthetic material, glass.

7.2.4 Non suitable packaging material:

No data available

7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

2-Methylpentaan-2,4-diol	Momentary value	25 ppm 125 mg/m ³	Private occupational exposure limit value
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Belgium

1,6-Hexanediol	Time-weighted average exposure limit 8 h	25 ppm 123 mg/m ³	
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USA (TLV-ACGIH)

Hexylene glycol	Momentary value	25 ppm	TLV - Adopted Value
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France

Hexylèneglycol	Short time value	25 ppm 125 mg/m ³	VL: Valeur non réglementaire indicative
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UK

2-Methylpentane-2,4-diol	Short time value	25 ppm 123 mg/m ³	Workplace exposure limit (EH40/2005)
	Time-weighted average exposure limit 8 h	25 ppm 123 mg/m ³	Workplace exposure limit (EH40/2005)

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
No data available		

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL - Workers

2-methyl-2,4-pentanediol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute local effects inhalation	98 mg/m ³	
	Long-term systemic effects dermal	2 mg/kg bw/day	
	Long-term systemic effects inhalation	14 mg/m ³	
	Long-term local effects inhalation	49 mg/m ³	

DNEL - General population

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Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute local effects inhalation	49 mg/m ³	
	Long-term systemic effects dermal	1 mg/kg bw/day	
	Long-term systemic effects inhalation	3.5 mg/m ³	
	Long-term systemic effects oral	1 mg/kg bw/day	
	Long-term local effects inhalation	25 mg/m ³	

PNEC

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Compartments	Value	Remark
Fresh water	0.429 mg/l	
Marine water	0.0429 mg/l	

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Aqua (intermittent releases)	4.29 mg/l	
STP	20 mg/l	
Fresh water sediment	1.79 mg/kg sediment dw	
Marine water sediment	0.179 mg/kg sediment dw	
Soil	0.11 mg/kg soil dw	
Oral	100 mg/kg food	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

High gas/vapour concentration: gas mask with filter type A.

b) Hand protection:

Gloves.

- materials for protective clothing (good resistance)

Butyl rubber, PVC, neoprene, viton, chloroprene rubber.

c) Eye protection:

Face shield.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical form	Liquid
Odour	Sweet odour
	Mild odour
Odour threshold	50 - 100 ppm
Colour	Colourless
Particle size	Not applicable (liquid)
Explosion limits	1.0 - 9.9 vol %
	52 - 490 g/m ³
Flammability	Non-flammable
Log Kow	0.58 ; QSAR
Dynamic viscosity	34 mPa.s ; 20 °C
Kinematic viscosity	Not determined
Melting point	-50 °C
Boiling point	198 °C ; 1013 hPa
Flash point	93 °C
Evaporation rate	No data available
Vapour pressure	0.065 hPa ; 20 °C
Relative vapour density	4.1
Solubility	water ; Complete
	ethanol ; Complete
	ether ; soluble
	acetone ; soluble
	aromatic hydrocarbons ; soluble
	tetrachloromethane ; soluble
Relative density	0.92 ; 20 °C
Decomposition temperature	No data available

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Auto-ignition temperature	306 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

Physical hazards

No data available

9.2 Other information:

Critical temperature	400 °C
Critical pressure	34239 hPa
Surface tension	0.033 N/m
Relative density saturated vapour/air mixture	1.0
Saturation concentration	0.32 g/m ³
Absolute density	920 kg/m ³ ; 20 °C

SECTION 10: Stability and reactivity

10.1 Reactivity:

Temperature above flashpoint: higher fire/explosion hazard.

10.2 Chemical stability:

Hygroscopic.

10.3 Possibility of hazardous reactions:

Reacts with (some) acids. Reacts violently with (strong) oxidizers.

10.4 Conditions to avoid:

Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. Finely divided: spark- and explosionproof appliances.
Finely divided: keep away from ignition sources/sparks.

10.5 Incompatible materials:

Oxidizing agents, (strong) acids, water/moisture.

10.6 Hazardous decomposition products:

Upon combustion: CO and CO₂ are formed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	OECD 420	> 2000 mg/kg bw		Rat	Male/female	Experimental value
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat	Male/female	Experimental value

Conclusion

Low acute toxicity by the oral route

Low acute toxicity by the dermal route

Corrosion/irritation

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Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Slightly irritating	OECD 405			Rabbit	Experimental value
Eye	Irritating		15 minutes		Human	Experimental value
Skin	Slightly irritating	OECD 404	4 h		Rabbit	Experimental value

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

Conclusion

Causes serious eye irritation, based on Annex VI - CLP

Causes skin irritation.

Respiratory or skin sensitisation

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Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Not sensitizing	OECD 406			Guinea pig	Male/female	Experimental value

Conclusion

Not sensitizing for skin

Specific target organ toxicity

2-methyl-2,4-pentanediol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Gender	Value determination
Oral	NOAEL	OECD 408	450 mg/kg bw/day			13 weeks (daily)	Rat	Male/female	Experimental value
Oral	NOEL	OECD 408	50 mg/kg bw/day			13 weeks (daily)	Rat	Male/female	Experimental value

Mutagenicity (in vitro)

2-methyl-2,4-pentanediol

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value

Mutagenicity (in vivo)

2-methyl-2,4-pentanediol

No (test) data available

Carcinogenicity

2-methyl-2,4-pentanediol

No (test) data available

Reproductive toxicity

2-methyl-2,4-pentanediol

	Parameter	Method	Value	Exposure time	Species	Gender	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 414	300 mg/kg bw/day		Rat	Female	Fetotoxicity, teratogenicity, maternal toxicity		Experimental value
Effects on fertility	NOAEL (P)	OECD 421	200 - 1000 mg/kg/d		Rat	Male/female			Experimental value
	NOEL	OECD 421	500 mg/kg/d		Rat	Male/female			Experimental value

Conclusion CMR

Not classified for reprotoxic or developmental toxicity

Not classified for mutagenic or genotoxic toxicity

Not classified for carcinogenicity

Toxicity other effects

2-methyl-2,4-pentanediol

No (test) data available

Chronic effects from short and long-term exposure

2-methyl-2,4-pentanediol

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation.

SECTION 12: Ecological information

12.1 Toxicity:

2-methyl-2,4-pentanediol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	9450 mg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value
Acute toxicity invertebrates	EC50	OECD 202	5410 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value

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Toxicity algae and other aquatic plants	ErC50	OECD 201	> 429 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	IC50		> 1000 mg/l	10 day(s)	Pseudomonas sp.	Static system	Fresh water	Experimental value

Conclusion

Slightly harmful to fishes
 Slightly harmful to invertebrates (Daphnia)
 Slightly harmful to algae
 Slightly harmful to bacteria
 Classification concerning the environment: not applicable

12.2 Persistence and degradability:

2-methyl-2,4-pentanediol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C: Modified MITI Test (I)	65 %	28 day(s)	Experimental value
OECD 301F: Manometric Respirometry Test	81 %	28 day(s)	Experimental value

Conclusion

Readily biodegradable in water

12.3 Bioaccumulative potential:

2-methyl-2,4-pentanediol

Log Kow

Method	Remark	Value	Temperature	Value determination
		0.58		QSAR

Conclusion

Low potential for bioaccumulation (Log Kow < 4)

12.4 Mobility in soil:

2-methyl-2,4-pentanediol

(log) Koc

Parameter	Method	Value	Value determination
Koc	Other	1	Calculated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
4 x 10E-7 atm m ³ /mol	Other	25 °C		Calculated value

Conclusion

Highly mobile in soil

12.5 Results of PBT and vPvB assessment:

Substance does not meet the screening criteria for persistency nor bioaccumulation so is neither PBT nor vPvB.

12.6 Other adverse effects:

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Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No. 1272/2008 and 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, decision 2000/0532/EC).

07 01 04* (other organic solvents, washing liquids and mother liquors). Depending on branch of industry and production process, also other EURAL codes may be applicable. Hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

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Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Do not discharge into surface water.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

Transport	Not subject
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14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Hazard identification number	
Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Limited quantities	

Rail (RID)

14.1 UN number:

Transport	Not subject
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14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Hazard identification number	
Class	
Classification code	

14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Limited quantities	

Inland waterways (ADN)

14.1 UN number:

UN number	9003
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14.2 UN proper shipping name:

Proper shipping name	Substances with a flash-point above 60 °C and not more than 100 °C
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14.3 Transport hazard class(es):

Class	9
Classification code	

14.4 Packing group:

Packing group	
Labels	none.

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Limited quantities	

Sea (IMDG)

14.1 UN number:

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Transport	Not subject
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14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	
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14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	

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

Annex II of MARPOL 73/78	
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Air (ICAO-TI/IATA-DGR)

14.1 UN number:

Transport	Not subject
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14.2 UN proper shipping name:

14.3 Transport hazard class(es):

Class	
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14.4 Packing group:

Packing group	
Labels	

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

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

European legislation:

REACH Annex XVII - Restriction

Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
2-methylpentane-2,4-diol	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: (a) 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; (b) 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; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'

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Volatile organic compounds (VOC)

0 %

National legislation The Netherlands

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 03
Waterbezwaarlijkheid	11

National legislation Germany

Schwangerschaft Gruppe	D
TA-Luft	TA-Luft Klasse 5.2.5
WGK	1; Classification water polluting based on the R-phrases in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 3)

National legislation France

No data available

National legislation Belgium

Additional classification	M; La mention "M" indique que lors d'une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d'intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l'exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d'échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d'échantillonnage.
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National legislation Denmark

No data available

National legislation Finland

No data available

National legislation Norway

No data available

National legislation Switzerland

No data available

National legislation other countries

No data available

15.2 Chemical safety assessment:

A chemical safety assessment has been performed.

SECTION 16: Other information

Labelling according to Directive 67/548/EEC-1999/45/EC (DSD/DPD)

Enumerated in substance list Annex I of directive 67/548/EEC et sequens

Labels



Irritant

R-phrases

36/38 Irritating to eyes and skin

S-phrases

(02) (Keep out of the reach of children)

Full text of any R-phrases referred to under headings 2 and 3:

R36/38 Irritating to eyes and skin

Full text of any H-statements referred to under headings 2 and 3:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

(*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive

DPD Dangerous Preparation Directive

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Specific concentration limits DSD

2-methylpentane-2,4-diol	C ≥ 10 %	Xi; R36/38	Annex VI
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The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in

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Product number: 10404

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2-methyl-2,4-pentanediol

processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.