

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : O/X-Ring Spray  
Product code : PO.10.01  
Type of product : Detergent  
Vaporizer : Aerosol  
Product group : Trade product

#### 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 use, Consumer use  
Use of the substance/mixture : Lubricant

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Putoline Oil  
Dollegoorweg 15  
7602 EC Almelo - Netherlands  
T 0031 (0)546 81 81 65  
[vib@putoline.com](mailto:vib@putoline.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Aerosol, Category 1 H222;H229  
Skin corrosion/irritation, Category 2 H315  
Specific target organ toxicity — Single exposure, Category 3, Narcosis H336  
Aspiration hazard, Category 1 H304  
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412  
Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. May cause drowsiness or dizziness. Causes skin irritation. May be fatal if swallowed and enters airways. Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02

GHS07

Signal word (CLP) :

Danger

Hazardous ingredients :

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Hazard statements (CLP) :

H222 - Extremely flammable aerosol.  
H229 - Pressurised container: May burst if heated.  
H315 - Causes skin irritation.  
H336 - May cause drowsiness or dizziness.  
H412 - Harmful to aquatic life with long lasting effects.

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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. P211 - Do not spray on an open flame or other ignition source. P251 - Do not pierce or burn, even after use. P271 - Use only outdoors or in a well-ventilated area. P301+P310+P331 - IF SWALLOWED: Immediately call a doctor. Do NOT induce vomiting. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
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### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	(CAS-No.) 64742-49-0 (EC-No.) 927-510-4 (EC Index-No.) 649-328-00-1 (REACH-no) 01-2119475515-33	20 - 25	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
butane (containing < 0,1% butadiene (203-450-8)) substance with national workplace exposure limit(s) (GB)	(CAS-No.) 106-97-8 (EC-No.) 203-448-7 (EC Index-No.) 601-004-00-0 (REACH-no) 01-2119474691-32	10 - 25	Flam. Gas 1, H220 Press. Gas (Comp.), H280
Propane substance with a Community workplace exposure limit	(CAS-No.) 74-98-6 (EC-No.) 200-827-9 (EC Index-No.) 601-003-00-5 (REACH-no) 01-2119486944-21	10 - 25	Flam. Gas 1, H220 Press. Gas (Comp.), H280

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Do not induce vomiting. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after ingestion	: May result in aspiration into the lungs, causing chemical pneumonia. Risk of lung oedema.

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

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible liquid. Extremely flammable aerosol.
Explosion hazard	: Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire	: Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

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### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

#### 6.1.2. 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".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.

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

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Storage temperature : < 40 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

O/X-Ring Spray		
EU	Exposure limits/standards for materials that can be formed when handling this product. When mists/aerosols can occur the following is recommended: 5 mg/m <sup>3</sup> - ACGIH TLV (inhalable fraction).	
butane (containing < 0,1% butadiene (203-450-8)) (106-97-8)		
Germany	TRGS 910 Acceptable concentration notes	
United Kingdom	Local name	Butane
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1450 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	600 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	1810 mg/m <sup>3</sup>
United Kingdom	WEL STEL (ppm)	750 ppm
United Kingdom	Remark (WEL)	Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

### Propane (74-98-6)

EU	IOELV TWA (ppm)	1000 ppm
Germany	TRGS 910 Acceptable concentration notes	

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### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR)	5 (> 240 minutes), 6 (> 480 minutes)	>=0,35		EN ISO 374

#### Eye protection:

Safety glasses

Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

#### Personal protective equipment symbol(s):



#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Aerosol.
Colour	: dark yellow.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: -44 °C
Flash point	: -97 °C
Auto-ignition temperature	: > 200 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol.
Vapour pressure	: 8300 hPa (20°C)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,715 g/cm <sup>3</sup> at 20 °C
Solubility	: Water: Insoluble / Slightly miscible
Log Pow	: No data available
Viscosity, kinematic	: < 20,5 mm <sup>2</sup> /s (40 °C) - ASTM D7279
Viscosity, dynamic	: No data available
Explosive properties	: Pressurised container: May burst if heated.
Oxidising properties	: No data available
Lower explosive limit (LEL)	: 0,8 vol %

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Upper explosive limit (UEL) : 10,9 vol %

### 9.2. Other information

VOC content : 357,5 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reacts violently with (strong) oxidizers.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

#### Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (64742-49-0)

LD50 oral rat > 5840 mg/kg [OECD 401]

LD50 dermal rat 2920 mg/kg [OECD 402]

LC50 inhalation rat (mg/l) > 23300 mg/m<sup>3</sup> (4h) [OECD 403]

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.

#### O/X-Ring Spray

Vaporizer Aerosol

Viscosity, kinematic < 20,5 mm<sup>2</sup>/s (40 °C) - ASTM D7279

## SECTION 12: Ecological information

### 12.1. Toxicity

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

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

#### Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (64742-49-0)

LC50 fish 1 > 13,4 mg/l 96h (Oncorhynchus mykiss) [OECD 203]

EC50 Daphnia 1 3 mg/l 48h (Daphnia) [OECD 202]

ErC50 (algae) 10 - 30 mg/l 72h (Pseudokirchneriella subcapitata) [OECD 201]

NOEC chronic fish 1,53 mg/l 28d (Oncorhynchus mykiss) [QSAR Petrotox]

NOEC chronic crustacea 1 mg/l 21d (Daphnia magna) [OECD 211]

### 12.2. Persistence and degradability

#### O/X-Ring Spray

Persistence and degradability Biodegradable.

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### Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (64742-49-0)

Biodegradation 98 % (28d) [OECD 301F]

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations






### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

European List of Waste (LoW) code : 20 01 13\* - solvents  
15 01 04 - metallic packaging

## SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 1950	UN 1950	UN 1950	UN 1950	UN 1950
<b>14.2. UN proper shipping name</b>				
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS	AEROSOLS
<b>Transport document description</b>				
UN 1950 AEROSOLS, 2.1, (D)	UN 1950 AEROSOLS, 2.1 (-97°C c.c.)	UN 1950 Aerosols, flammable, 2.1	UN 1950 AEROSOLS, 2.1	UN 1950 AEROSOLS, 2.1
<b>14.3. Transport hazard class(es)</b>				
2.1	2.1	2.1	2.1	2.1
				
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
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

#### Overland transport

Classification code (ADR) : 5F  
Special provisions (ADR) : 190, 327, 344, 625  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E0  
Packing instructions (ADR) : P207  
Special packing provisions (ADR) : PP87, RR6, L2  
Mixed packing provisions (ADR) : MP9  
Transport category (ADR) : 2  
Special provisions for carriage - Packages (ADR) : V14  
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV12  
Special provisions for carriage - Operation (ADR) : S2

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Tunnel restriction code (ADR) : D

### Transport by sea

Special provisions (IMDG) : 63, 190, 277, 327, 344, 381, 959  
Packing instructions (IMDG) : P207, LP200  
Special packing provisions (IMDG) : PP87, L2  
EmS-No. (Fire) : F-D  
EmS-No. (Spillage) : S-U  
Stowage category (IMDG) : None  
Stowage and handling (IMDG) : SW1, SW22  
Segregation (IMDG) : SG69  
Flash point (IMDG) : -97°C c.c.

### Air transport

PCA Excepted quantities (IATA) : E0  
PCA Limited quantities (IATA) : Y203  
PCA limited quantity max net quantity (IATA) : 30kgG  
PCA packing instructions (IATA) : 203  
PCA max net quantity (IATA) : 75kg  
CAO packing instructions (IATA) : 203  
CAO max net quantity (IATA) : 150kg  
Special provisions (IATA) : A145, A167, A802  
ERG code (IATA) : 10L

### Inland waterway transport

Classification code (ADN) : 5F  
Special provisions (ADN) : 190, 327, 344, 625  
Limited quantities (ADN) : 1 L  
Excepted quantities (ADN) : E0  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01, VE04  
Number of blue cones/lights (ADN) : 1

### Rail transport

Classification code (RID) : 5F  
Special provisions (RID) : 190, 327, 344, 625  
Limited quantities (RID) : 1L  
Excepted quantities (RID) : E0  
Packing instructions (RID) : P207, LP200  
Special packing provisions (RID) : PP87, RR6, L2  
Mixed packing provisions (RID) : MP9  
Transport category (RID) : 2  
Special provisions for carriage – Packages (RID) : W14  
Special provisions for carriage - Loading, unloading and handling (RID) : CW9, CW12  
Colis express (express parcels) (RID) : CE2  
Hazard identification number (RID) : 23

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

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VOC content : 357,5 g/l

Detergent Regulation : Labelling of contents (648/2004/EC):	
Component	%
aliphatic hydrocarbons	>=30%

Directive 2012/18/EU (SEVESO III)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P3a FLAMMABLE AEROSOLS 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1	150	500

### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
13.1	European List of Waste (LoW) code	Added	

Abbreviations and acronyms:	
STP	Sewage treatment plant
TLM	Median Tolerance Limit
SDS	Safety Data Sheet
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative



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Full text of H- and EUH-statements:	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Gas 1	Flammable gases, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Press. Gas (Comp.)	Gases under pressure : Compressed gas
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

*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*