

Ardrox 9PR5 Aerosol

Version: 3.0

Revision Date 09.04.2014

Print Date 22.01.2015

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

1.1 Product identifier

Trade name : Ardrox 9PR5 Aerosol

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

Use of the Sub-
stance/Mixture : Cleaning agent
Recommended restrictions
on use : None known.

1.3 Details of the supplier of the safety data sheet

Company : Chemetall Ltd
Denbigh Road
Bletchley Milton Keynes MK1 1PB
Telephone : 01908 649333
Telefax : 01908 373939

Contact person product safety
Telephone : +49(0)6971652832
E-mail address : msds.de@chemetall.com

1.4 Emergency telephone number

Emergency telephone
number : 01908 649333

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1	H222: Extremely flammable aerosol. H229: Pressurized container: May burst if heated.
Skin irritation, Category 2	H315: Causes skin irritation.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Extremely flammable	R12: Extremely flammable.
Irritant	R38: Irritating to skin.

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Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67: Vapours may cause drowsiness and dizziness.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word :

Danger

Hazard statements :

H222 Extremely flammable aerosol.
H229 Pressurized container: May burst if heated.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:
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.
P243 Take precautionary measures against static discharge.
P251 Do not pierce or burn, even after use.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P262 Do not get in eyes, on skin, or on clothing.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:
P410 + P412 Protect from sunlight. Do not expose to

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Disposal: temperatures exceeding 50 °C/ 122 °F.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
• Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms :



Extremely flammable



Irritant



Dangerous for the environment

R-phrases(s) : R12 Extremely flammable.
R38 Irritating to skin.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness.

S-phrases(s) : S16 Keep away from sources of ignition - No smoking.
S23 Do not breathe gas/fumes/vapour/spray.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S51 Use only in well-ventilated areas.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Special labelling of certain mixtures : Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.
Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.
Keep away from sources of ignition - No smoking.
Keep out of the reach of children.

Detergents Regulation EC 907/2006 : Aliphatic hydrocarbons 30 % and more

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2.3 Other hazards

The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Chemical nature : Mixture of organic solvents.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	927-510-4 01-2119475515-33	F; R11 Xn; R65 Xi; R38 R67 N; R51/53	Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 50 - < 65
Propane	74-98-6 200-827-9 01-2119486944-21	F+; R12	Flam. Gas 1; H220 Press. Gas	>= 10 - < 25
Cyclohexane	110-82-7 203-806-2 01-2119463273-41	F; R11 Xn; R65 Xi; R38 R67	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315	>= 1 - < 2.5

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		N; R50-R53	STOT SE 3; H336	
			Aquatic Acute 1; H400	
			Aquatic Chronic 1; H410	

WEL substance :

Butane	106-97-8 203-448-7	F+; R12	Flam. Gas 1; H220	>= 10 - < 25
		Nota C	Press. Gas	

For the full text of the R-phrases mentioned in this Section, see Section 16.
 For the full text of the H-Statements mentioned in this Section, see Section 16.
 For the full text of the Notas mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : First-aid crew: Ensure self-protection.
 Move out of dangerous area.
 Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
 If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
 If symptoms persist, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids.
 Consult a physician.
- If swallowed : Rinse mouth with water.
 Do NOT induce vomiting.
 Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

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Risks : Causes skin irritation.
May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Alcohol-resistant foam
Water spray

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : May form toxic gases on heating or in case of fire.
Carbon monoxide
Carbon dioxide (CO₂)

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Further information : Use water spray to cool unopened containers.
Risk of bursting.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite)

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and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

See chapter 8 and 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Floor level ventilation required. Have eye wash bottle or eye rinse ready at the work place. To avoid risks to man and the environment, comply with the instructions for use.
- Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. To maintain product quality, do not store in heat or direct sunlight.
- Storage temperature : < 40 °C

7.3 Specific end use(s)

- Specific use(s) : Cleaning agent

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Butane	106-97-8	TWA	600 ppm 1,450 mg/m ³	2007-08-01	GB EH40

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Further information	:	Carc: Capable of causing cancer and/or heritable genetic damage. The identified substances include those which: - are assigned the risk phrases 'R45: May cause cancer'; 'R46: may cause heritable genetic damage'; 'R49: May cause cancer by inhalation' or - a substance or process listed in Schedule 1 of COSHH. Carcinogenic only applies if butane contains more than 0.1% of buta-1,3-diene				
		106-97-8	STEL	750 ppm 1,810 mg/m3	2007-08-01	GB EH40
Further information	:	Carc: Capable of causing cancer and/or heritable genetic damage. The identified substances include those which: - are assigned the risk phrases 'R45: May cause cancer'; 'R46: may cause heritable genetic damage'; 'R49: May cause cancer by inhalation' or - a substance or process listed in Schedule 1 of COSHH. Carcinogenic only applies if butane contains more than 0.1% of buta-1,3-diene				
Cyclohexane		110-82-7	TWA	200 ppm 700 mg/m3	2006-02-09	2006/15/EC
Further information	:	Indicative				
		110-82-7	TWA	100 ppm 350 mg/m3	2005-04-06	GB EH40
		110-82-7	STEL	300 ppm 1,050 mg/m3	2005-04-06	GB EH40

DNEL/DMEL

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

: End Use: DNEL, Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 2085 mg/m3

End Use: DNEL, Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 300 mg/kg bw/d

Cyclohexane

: End Use: DNEL, Industrial use, Workers
Exposure routes: Inhalation
Potential health effects: Short-term exposure, Systemic effects
Value: 700 mg/m3

End Use: DNEL, Industrial use, Workers

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Exposure routes: Inhalation
Potential health effects: Short-term exposure, Local effects
Value: 700 mg/m³

End Use: DNEL, Industrial use, Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 700 mg/m³

End Use: DNEL, Industrial use, Workers
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 700 mg/m³

End Use: DNEL, Industrial use, Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 2016 mg/kg

PNEC
Cyclohexane

: Water
Value: 0.207 mg/l

Sediment
Value: 3.627 mg/kg

Soil
Value: 2.99 mg/kg

Behaviour in waste water treatment plants
Value: 3.24 mg/l

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.
Electrical equipment should be protected to the appropriate standard.
Use only explosion-proof equipment.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
Recommended Filter type:
AX-P2

Hand protection : Nitrile rubber
Neoprene gloves
butyl-rubber

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Protective gloves complying with EN 374.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

- Eye protection : Eye protection (EN 166)
Tightly fitting safety goggles
- Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
- Hygiene measures : Take off contaminated clothing and shoes immediately.
Keep away from food, drink and animal feedingstuffs.
Wash hands before breaks and immediately after handling the product.
Avoid contact with skin and eyes.
Do not breathe vapour.
Do not breathe spray.

Environmental exposure controls

- General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : aerosol
- Colour : colourless
- Odour : hydrocarbon-like
- Flash point : -4 °C
Active substance
- Ignition temperature : -60 °C
Butane/Propane
> 210 °C
- Boiling point/boiling range : > 90 °C
Active substance
- Density : 0.68 g/cm³
at 20 °C

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Active substance

9.2 Other information

Explosivity : Vapours may form explosive mixture with air.

Directive 1999/13/EC on the limitation of emissions of volatile organic compounds : Value: 100 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.
Pressurized container: May burst if heated.

10.4 Conditions to avoid

Conditions to avoid : Keep away from open flames, hot surfaces and sources of ignition.
Strong sunlight for prolonged periods.

10.5 Incompatible materials

Materials to avoid : Alkali metals
Strong oxidizing agents
Acids

10.6 Hazardous decomposition products

Risk of decomposition. : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

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Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : LD50: > 5,840 mg/kg
Species: rat
Method: OECD Test Guideline 401

Cyclohexane : LD50: > 5,000 mg/kg
Species: rat

Acute inhalation toxicity
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : LC50: > 23.3 mg/l
Exposure time: 4 h
Species: rat
Method: OECD Test Guideline 403

Cyclohexane : LC50: 14 mg/l
Exposure time: 4 h
Species: rat

Acute dermal toxicity
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : LD50: > 2,920 mg/kg
Species: rat
Method: OECD Test Guideline 402

Cyclohexane : LD50: > 2,000 mg/kg
Species: rabbit

Skin corrosion/irritation

Skin irritation : Causes skin irritation.

Serious eye damage/eye irritation

Eye irritation : May cause eye irritation with susceptible persons.

Respiratory or skin sensitisation

Sensitisation : No data available

Germ cell mutagenicity

Cyclohexane : Ames test
In vitro tests did not show mutagenic effects

Aspiration hazard

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Aspiration toxicity
Cyclohexane : The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Neurological effects : May cause drowsiness or dizziness.

SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicology studies for the product are not available.

Toxicity to fish
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : > 13.4 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)

Cyclohexane : LC50: 4.53 mg/l
Exposure time: 48 h
Species: Fish

Toxicity to daphnia and other aquatic invertebrates
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : 3 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Cyclohexane : EC50: 0.9 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : 10 - 30 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata

Cyclohexane : IC50: > 4 mg/l
Exposure time: 72 h
Species: Selenastrum capricornutum (green algae)

Toxicity to bacteria
Cyclohexane : EC50: 29 mg/l
Exposure time: 24 h
Species: Photobacterium phosphoreum

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12.2 Persistence and degradability

Biodegradability : No data available

12.3 Bioaccumulative potential

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil

Distribution among environmental compartments : No data available

12.5 Results of PBT and vPvB assessment

This mixture does not contain substances considered to be persistent, bioaccumulating and toxic (PBT)., This mixture does not contain substances considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Additional ecological information : water endangering
Toxic to aquatic life with long lasting effects.
Do not flush into surface water or sanitary sewer system.
Do not allow material to contaminate ground water system.
Even leakage of small amounts in the subsoil can contaminate drinking water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
Contaminated packaging : Dispose of as unused product.
Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

ADR
UN number : 1950
UN proper shipping name : AEROSOLS
Transport hazard class(es) : 2

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Classification Code : 5F
Limited Quantity (LQ) Inner Packaging : 1.00 L
Maximum quantity : 30.00 KG
Labels : 2.1
Tunnel restriction code : (D)
Environmentally hazardous : yes

IATA

UN number : 1950
Description of the goods : Aerosols, flammable
Class : 2.1
Labels : 2.1

IATA_C

Packing instruction (cargo aircraft) : 203
Packing instruction (LQ) : Y203
Maximum quantity : 150.00 KG
Environmentally hazardous : no

IATA_P

Packing instruction (passenger aircraft) : 203
Packing instruction (LQ) : Y203
Maximum quantity : 75.00 KG
Environmentally hazardous : no

IMDG

UN number : 1950
Description of the goods : AEROSOLS Heptane
Class : 2.1
Labels : 2.1
EmS Number 1 : F-D
EmS Number 2 : S-U
Marine pollutant : yes

**Shaded from sources of heat.
"IMDG-Code segregation group not applicable".**

**Shaded from sources of heat.
"IMDG-Code segregation group not applicable".**

RID

UN number : 1950
Description of the goods : AEROSOLS
Transport hazard class(es) : 2
Classification Code : 5F

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Hazard Identification Number : 23
Labels : 2.1
Limited Quantity (LQ) Inner : 1.00 L
Packaging
Maximum quantity : 30.00 KG

Environmentally hazardous : yes

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Water contaminating class (Germany) : WGK 2 water endangering
VVWS A4

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

: Classification / Labeling according to Directive 2008/47/EU.

15.2 Chemical Safety Assessment

For a mixture it is not mandatory to include an exposure scenario in the material safety data sheet. The necessary safety - related information is stated in the first 16 sections.

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

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R11	Highly flammable.
R12	Extremely flammable.
R38	Irritating to skin.
R50	Very toxic to aquatic organisms.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R67	Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurized container: May burst if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of Notas referred to under section 3

Nota C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In Annex I, a general designation of the following type is sometimes used: "xylenol". In this case the manufacturer or any other person who markets such a substance must state on the label whether the substance is a specific isomer (a) or a mixture of isomers (b). Example: (a) 2,4-dimethylphenol (b) xyleneol (mixture of isomers).
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Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.