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SAFETY DATA SHEET
according to 1907/2006/EC, Article 31

1- IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product details

Trade name: RAL Sprays

Article number: 28001-28012

Intended use: Car refinishing Product/Paint

Manufacturer/Supplier: Chamäleon GmbH

Rudolf-Diesel-Straße, 8a, 69155 Heidelberg -- Germany

Further information obtainable from: Product Safety Department

Information in case of emergency: + 49 70024112112 (CH)

2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36: Irritating to eyes.

F+; Extremely flammable

R12: Extremely flammable.

R52/53-66-67: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.



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At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Warning! Pressurised container.

Has a narcotising effect.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02 GHS07

Signal word Danger

Hazard-determining components of labelling:

acetone

Naphtha (petroleum), hydrodesulfurized heavy (< 0,1% benzol CAS nr. 71-43-2)

Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2)

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.

P260 Do not breathe spray.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P211 Do not spray on an open flame or other ignition source.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local regulations.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3- COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.



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| Dangerous components: | | |
|---|--|----------|
| CAS: 67-64-1 EINECS: 200-662-2 Index number: 606-001-00-8 Reg.nr.: 01-2119471330-49-xxxx | acetone Xi R36 F R11 R66-67 Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336 | 25-50% |
| CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21-xxxx | propane F+ R12 Flam. Gas 1, H220 Press. Gas, H280 | 12.5-20% |
| CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0 Reg.nr.: 01-2119485395-27-xxxx | isobutane F+ R12 Flam. Gas 1, H220 Press. Gas, H280 | 10-12.5% |
| CAS: 64742-82-1 EC number: 919-446-0 Index number: 649-330-00-2 Reg.nr.: 01-2119458049-33-xxxx | Naphtha (petroleum), hydrodesulfurized heavy (< 0,1% benzol CAS nr. 71-43-2) Xn R65 N R51/53 R10-66-67 Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 STOT SE 3, H336 | 5-10% |
| CAS: 64742-95-6 EINECS: 265-199-0 Index number: 649-356-00-4 Reg.nr.: 01-2119455851-35-xxxx | Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2) Xn R65 Xi R37 N R51/53 R10-66-67 Carc. Cat. 2, Muta. Cat. 2 Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 STOT SE 3, H335-H336 | 1-2.5% |
| CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32-xxxx | xylene Xn R20/21 Xi R38 R10 Flam. Liq. 3, H226 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315 | 1-2.5% |

Additional information: For the wording of the listed risk phrases refer to section 16.



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4- FIRST - AID MEASURE

Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor

After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5- FIRE - FIGHTING MEASURE

Extinguishing media

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards arising from the substance or mixture No further relevant information available.

Advice for firefighters

Protective equipment: No special measures required.

6- ACCIDENTAL RELEASE MEASURE

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water

Methods and material for containment and cleaning up:

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.



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7- HANDLING AND STORAGE

Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Protect from heat and direct sunlight.

Specific end use(s) No further relevant information available.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

| | |
|---|---|
| Ingredients with limit values that require monitoring at the workplace: | |
| 67-64-1 acetone | |
| WEL | Short-term value: 3620 mg/m ³ , 1500 ppm Long-term value: 1210 mg/m ³ , 500 ppm |
| 106-97-8 butane | |
| WEL | Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene) |
| 1330-20-7 xylene | |
| WEL | Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV |
| Ingredients with biological limit values: | |
| 1330-20-7 xylene | |
| BMGV | 650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid |

Additional information: The lists valid during the making were used as basis.



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Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Respiratory protection: Not required

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the Degradation

Material of gloves: Not required.

Penetration time of glove material: Not required.

Eye protection: Tightly sealed goggles.

9 – PHYSICAL AND CHEMICAL PROPERTIES

| Information on basic physical and chemical properties | |
|--|---|
| General Information | |
| Appearance: | |
| Form: | <i>Aerosol</i> |
| Colour: | <i>According to product specification</i> |
| Odour: | <i>Characteristic</i> |
| Odour threshold: | <i>Not determined.</i> |
| pH-value: | <i>Not determined.</i> |
| Change in condition | |
| Melting point/Melting range: | <i>Undetermined.</i> |
| Boiling point/Boiling range: | <i>Not applicable, as aerosol</i> |
| Flash point: | <i>< 0 °C (< 32 °F) Not applicable, as aerosol</i> |
| Flammability (solid, gaseous): | <i>Not applicable.</i> |
| Ignition temperature: | <i>365 °C (689 °F)</i> |
| Decomposition temperature: | <i>Not determined.</i> |
| Self-igniting: | <i>Product is not selfigniting.</i> |
| Danger of explosion: | <i>Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.</i> |
| Explosion limits: | |
| Lower: | <i>1.5 Vol %</i> |
| Upper: | <i>13.0 Vol %</i> |



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| | |
|---|--|
| Vapour pressure at 20 °C (68 °F): | 3500 hPa (2625 mm Hg) |
| Density at 20 °C (68 °F): | 0.7966 g/cm ³ (6.648 lbs/gal) |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not determined. |
| Solubility in / Miscibility with water: | Not miscible or difficult to mix. |
| Partition coefficient (n-octanol/water): | Not determined. |
| Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| Solvent content: | |
| Organic solvents: | 87.1 % |
| EU-VOC: | 694.2 g/l |
| EU-VOC in %: | 87.14 % |
| Solids content: | 11.8 % |
| Other information | No further relevant information available. |

10- STABILITY AND REACTIVITY

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11- TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

| | | |
|--|------------|--------------------------------|
| LD/LC50 values relevant for classification: | | |
| 67-64-1 acetone | | |
| Oral | LD50 | 5800 mg/kg (rat) |
| Dermal | LD50 | 20000 mg/kg (rabbit) |
| Inhalative | LC50 / 4 h | 39 mg/m ³ (rat) |
| 106-97-8 butane | | |
| Inhalative | LC50 / 4 h | 658000 mg/m ³ (rat) |



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| | | |
|--|------------|-------------------------------|
| 64742-82-1 Naphtha (petroleum), hydrodesulfurized heavy (< 0,1 % benzol CAS nr. 71-43-2) | | |
| Oral | LD50 | >2000 mg/kg (rat) |
| Dermal | LD50 | >2000 mg/kg (rabbit) |
| Inhalative | LC50 / 4 h | >11.6 mg/m ³ (rat) |
| 64742-95-6 Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2) | | |
| Oral | LD50 | 3592 mg/kg (rat) (OECD401) |
| Dermal | LD50 | >3160 mg/kg (rab) (OECD402) |
| Inhalative | LC50 / 4 h | >6193 mg/m ³ (rat) |
| 1330-20-7 xylene | | |
| Oral | LD50 | 4300 mg/kg (rat) |
| Dermal | LD50 | 2000 mg/kg (rabbit) |
| Inhalative | LC50 / 4 h | 22.1 mg/m ³ (rat) |

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

12 – ECOLOGICAL INFORMATION

Toxicity

| | |
|--|---------------------------|
| Aquatic toxicity | |
| 67-64-1 acetone | |
| EC50 / 48 h | 8800 mg/l (daphnia magna) |
| LC50 / 48 h | 2262 mg/l (daphnia magna) |
| LC50 / 96 h (static) | 5540 mg/l (fish) |
| 64742-82-1 Naphtha (petroleum), hydrodesulfurized heavy (< 0,1 % benzol CAS nr. 71-43-2) | |
| EC50 / 48 h | >100 mg/l (daphnia magna) |
| LC50 / 96 h | >100 mg/l (fish) |
| 64742-95-6 Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2) | |
| EC50 / 24 h | 150 mg/l (daphnia magna) |
| EC50 / 48 h | 7.4 mg/l (daphnia magna) |
| LC50 / 96 h | 3.77 mg/l (fish) |
| 1330-20-7 xylene | |
| EC50 / 48 h | 7.4 mg/l (daphnia magna) |
| LC50 / 96 h | 13.5 mg/l (fish) |



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Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Harmful to fish

Additional ecological information:

General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13- DISPOSAL CONSIDERATION

Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

| | |
|--------------------------|---|
| European waste catalogue | |
| 08 01 11* | waste paint and varnish containing organic solvents or other dangerous substances |
| 15 01 04 | metallic packaging |

Uncleaned packaging:

Recommendation: Non contaminated packagings may be recycled

14- TRANSPORT INFORMATION

UN-Number

ADR, IMDG, IATA

UN1950

UN proper shipping name

ADR

1950 AEROSOLS

IMDG,

IATA

AEROSOLS

AEROSOLS, flammable

Transport hazard class(es)

ADR



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Class 2 5F Gases
Label 2.1

IMDG, IATA



Class 2.1
Label 2.1

Packing group

ADR, IMDG, IATA Void

Environmental hazards:

Marine pollutant: No

Special precautions for user

Warning: Gases.
Danger code (Kemler): -
EMS Number: F-D,S-U

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E0
Not permitted as Excepted Quantity

Transport category 2

Tunnel restriction code D

IMDG

Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E0
Not permitted as Excepted Quantity

UN "Model Regulation": UN1950, AEROSOLS, 2.1



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15 – REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture: No further relevant information available.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16-OTHER INFORMATION

Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

R10 Flammable.

R11 Highly flammable.

R12 Extremely flammable.

R20/21 Harmful by inhalation and in contact with skin.

R36 Irritating to eyes.

R37 Irritating to respiratory system.

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

The information contained in these sheets is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects and should not be construed as any guarantee of technical performance or suitability for particular applications.