

MODE D'EMPLOI - GB**1 Identification of the substance/mixture and of the company/undertaking**

- **Product identifier**
- **Trade name:** Cleansing Container for nozzle A
- **CAS Number:**
109-99-9
- **EC number:**
203-726-8
- **Index number:**
603-025-00-0
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Cleaning material/ Detergent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**

Romus

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2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

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



Xi; Irritant

R36/37: Irritating to eyes and respiratory system.



F; Highly flammable

R11: Highly flammable.

R19: May form explosive peroxides.

- **Information concerning particular hazards for human and environment:** Not applicable.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

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

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** *Danger*
- **Hazard statements**
 - H225+EUH019 Highly flammable liquid and vapour. May form explosive peroxides.*
 - H319 Causes serious eye irritation.*
 - H335 May cause respiratory irritation.*
- **Precautionary statements**
 - P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
 - P241 Use explosion-proof electrical/ventilating/lighting/equipment.*
 - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.*
 - P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*
 - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
 - P405 Store locked up.*
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

4 First aid measures

- **Description of first aid measures**
- **General information:**
 - Take affected persons out of danger area and lay down.*
 - Immediately remove any clothing soiled by the product.*
- **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact:**
 - Immediately wash with water and soap and rinse thoroughly.*
 - If skin irritation continues, consult a doctor.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*
- **After swallowing:**
 - Rinse out mouth and then drink plenty of water.*
 - If symptoms persist consult doctor.*
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** *May cause drowsiness and dizziness.*
- **Indication of any immediate medical attention and special treatment needed**
 - No further relevant information available.*

5 Firefighting measures

- **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**

In case of fire, the following can be released:

Carbon Monoxide and Carbondioxide

flammable vapors heavier than air.

Explosive mixtures are possible even at room temperature.

In case of fire formation of hazardous combustion gases or vapors possible.

· **Advice for firefighters**

· **Protective equipment:** *Wear self-contained respiratory protective device.*

· **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Precipitate resulting vapors with water spray.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Keep away from ignition sources.

Wear protective clothing.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation

Avoid contact with eyes and skin.

· **Environmental precautions:**

Damp down dust with water spray.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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

· **Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· **Reference to other sections** *See Section 8 for information on personal protection equipment.*

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Wear personal protective equipment.

· **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Ex-Protection necessary.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Suitable material for receptacles and pipes: Stainless steel.

Store in a cool location.

Unsuitable material for container: plastic (eg. PVC).

· **Information about storage in one common storage facility:**

Store away from foodstuffs.

Do not store with oxidizing or spontaneously combustible substances.

· **Further information about storage conditions:**

Avoid contact with air / oxygen (formation of peroxide).

- Protect from exposure to the light.
- Store in cool, dry conditions in well sealed receptacles.
- Protect from heat and direct sunlight.
- **Maximum storage temperature:** 25 °C. Max. 30 °C.
- **Minimum storage temperature:** ≥ 0°C.
- **Storage class:** 3A (accord. VCI) flammable liquids.
- **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:**

109-99-9 tetrahydrofuran

AGW (Germany)	150 mg/m ³ , 50 ppm 2(I);DFG, EU, H, Y
IOELV (EU)	Short-term value: 300 mg/m ³ , 100 ppm Long-term value: 150 mg/m ³ , 50 ppm Skin
MAK (EU)	200 mg/m ³ , 300 ppm
MAK (Switzerland)	Short-term value: 300 mg/m ³ , 100 ppm Long-term value: 150 mg/m ³ , 50 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Store protective clothing separately.
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
- **Respiratory protection:**
 - Filter AX
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**
 - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
 - Recommended thickness of the material: ≥ 0,1 mm
 - Polyethylene laminate (PE laminate)
- **Penetration time of glove material**
 - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
 - Fluorocarbon rubber (Viton)
 - Natural rubber, NR

Butyl rubber, BR

Recommended thickness: FR(Viton) 0.7 mm, NR 1.0 mm, BR 0.3 - 0.7 mm.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Colourless
Odour:	Ether-like

· **Change in condition**

Melting point/Melting range: -108,5°C

Boiling point/Boiling range: 65°C (DIN 51751)

· **Flash point:** -21°C (DIN 51755)

· **Ignition temperature:** 230°C (DIN 51794)

· **Danger of explosion:** May form explosive peroxides.

· **Explosion limits:**

Lower:	1,5 Vol %
Upper:	12 Vol %

· **Vapour pressure at 20°C:** 200 hPa

· **Density at 20°C:** 0,8892 g/cm³

· **Solubility in / Miscibility with water:** Fully miscible.

· **Viscosity:**

Dynamic at 20°C: 0,5 mPas

· **Solvent content:**

Organic solvents:	99,9 %
VOC (EC)	99,95 %
VOC (CH)	99,95 %

· **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** Possible formation of peroxide.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

109-99-9 tetrahydrofuran

Oral	LD50	2500 mg/kg (rat)
Inhalative	LC50/4 h	66 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant. Defatting.
- **on the eye:** Causes serious eye irritation.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** Harmful

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

109-99-9 tetrahydrofuran

Oral	IC 5 / 8 d)	3700 mg/l (Algen)
	EC5 (16h)	580 mg/l (Bakterien/bacillus)
	EC50 (24h)	382 mg/l (daphnia magna)
	LC50 (96h)	2100 mg/l (Rainbow trout)

- **Persistence and degradability** Not easily biodegradable
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations



- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.

- **European waste catalogue**

14 06 03*	other solvents and solvent mixtures
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- **Uncleaned packaging:**
- **Recommendation:**
Non contaminated packagings may be treated like household garbage.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
Disposal must be made according to official regulations.

14 Transport information

· <i>UN-Number</i>	
· <i>ADR, IMDG, IATA</i>	UN2056
· <i>UN proper shipping name</i>	
· <i>ADR</i>	2056 TETRAHYDROFURAN
· <i>IMDG, IATA</i>	TETRAHYDROFURAN
· <i>Transport hazard class(es)</i>	
· <i>ADR</i>	
	
· <i>Class</i>	3 Flammable liquids.
· <i>Label</i>	3
· <i>IMDG, IATA</i>	
	
· <i>Class</i>	3 Flammable liquids.
· <i>Label</i>	3
· <i>Packing group</i>	
· <i>ADR, IMDG, IATA</i>	II
· <i>Environmental hazards:</i>	
· <i>Marine pollutant:</i>	No
· <i>Special precautions for user</i>	Warning: Flammable liquids.
· <i>Danger code (Kemler):</i>	33
· <i>EMS Number:</i>	F-E,S-D
· <i>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</i>	Not applicable.
· <i>Transport/Additional information:</i>	
· <i>ADR</i>	
· <i>Excepted quantities (EQ):</i>	E2
· <i>Limited quantities (LQ)</i>	1L
· <i>Transport category</i>	2
· <i>Tunnel restriction code</i>	D/E
· <i>UN "Model Regulation":</i>	UN2056, TETRAHYDROFURAN, 3, II

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· *** Data compared to the previous version altered.**