


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

arecal Nix
Article number: 0896113400

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

Corrosion protection

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Kellner & Kunz AG
 Boschstr. 37
 4600 Wels / AUSTRIA
 Phone 0043-7242-484-0
 Fax 0043-7242-484-924
 Homepage www.reca.co.at
 E-mail info@reca.co.at

Address enquiries to

Technical information info@reca.co.at
Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +43 (0) 1 406 43 43 (24h)

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
 STOT SE 3: H336 May cause drowsiness or dizziness.
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms

Signal word

DANGER

Contains:

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Hazard statements

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

Precautionary statements

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.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F.
 P261 Avoid breathing vapours / spray.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling

EUH066 Repeated exposure may cause skin dryness or cracking.



2.3 Other hazards

Environmental hazards	Does not contain any PBT or vPvB substances.
Other hazards	none

SECTION 3: Composition / Information on ingredients

Product-type:

3.2 The product is a mixture.

Range [%]	Substance
25 - <50	iso-Butane CAS: 75-28-5, EINECS/ELINCS: 200-857-2, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119485395-27-XXXX GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280
25 - <50	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics EINECS/ELINCS: 927-241-2, Reg-No.: 01-2119471843-32-XXXX GHS/CLP: Asp. Tox. 1: H304 - Flam. Liq. 3: H226 - STOT SE 3: H336 - Aquatic Chronic 3: H412
10 - <25	Propane CAS: 74-98-6, EINECS/ELINCS: 200-827-9, EU-INDEX: 601-003-00-5, Reg-No.: 01-2119486944-21-XXXX GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280
1 - <10	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics EINECS/ELINCS: 918-481-9, Reg-No.: 01-2119457273-39-XXXX GHS/CLP: Asp. Tox. 1: H304
1 - <5	Butane CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX GHS/CLP: Flam. Gas 1: H220 - Press. Gas: H280

Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%. For full text of H-statements: see SECTION 16.
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SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Take off contaminated clothing and wash before reuse.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Seek medical advice immediately. Rinse out mouth and give plenty of water to drink. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Headache
Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Foam, dry powder, water spray jet, carbon dioxide.
Extinguishing media that must not be used	Full water jet.



5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
In the event of fire the following can be released:
Carbon monoxide (CO)
Not combusted hydrocarbons.
Bursting aerosols can be forcibly projected from a fire.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (f.ex. diatomaceous earth).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Avoid spilling or spraying in enclosed areas.
Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.
Vapours/spray can form an explosive mixture with air.
Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.
Prevent penetration into the ground.
Do not store together with oxidizing agents.
Protect from heat/overheating.
Keep in a cool place, heat causes increase in pressure and risk of bursting.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C.

7.3 Specific end use(s)

See product use, SECTION 1.2



SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
EINECS/ELINCS: 927-241-2, Reg-No.: 01-2119471843-32-XXXX
Long-term exposure: 1200 mg/m ³
iso-Butane
CAS: 75-28-5, EINECS/ELINCS: 200-857-2, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119485395-27-XXXX
Long-term exposure: 600 ppm, 1450 mg/m ³ , (Butane)
Short-term exposure (15-minute): 750 ppm, 1810 mg/m ³
Destillates (petroleum), hydrotreated heavy paraffinic (containing < 3% DMSO-extract)
CAS: 64742-54-7, EINECS/ELINCS: 265-157-1, EU-INDEX: 649-467-00-8, Reg-No.: 01-2119484627-25-XXXX
Long-term exposure: 5 mg/m ³ , oil mist
Short-term exposure (15-minute): 10 mg/m ³
Butane
CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX
Long-term exposure: 600 ppm, 1450 mg/m ³
Short-term exposure (15-minute): 750 ppm, 1810 mg/m ³
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
EINECS/ELINCS: 918-481-9, Reg-No.: 01-2119457273-39-XXXX
Long-term exposure: 800 mg/m ³

DNEL

Substance
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Industrial, inhalative, Long-term - systemic effects: 871 mg/m ³ .
Industrial, dermal, Long-term - systemic effects: 77 mg/kg bw/day.
general population, oral, Long-term - systemic effects: 46 mg/kg bw/day.
general population, dermal, Long-term - systemic effects: 46 mg/kg bw/day.
general population, inhalative, Long-term - systemic effects: 185 mg/m ³ .



8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. 0,7 mm Butyl rubber, >480 min (EN 374-1/-2/-3).
Skin protection	light protective clothing
Other	Do not breathe vapour/spray. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	aerosol
Color	brown
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	0,5 Vol.-%
Upper explosion limit	9,4 Vol.-%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	0,78 (DIN 51757)
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Partition coefficient [n-octanol/water]	No information available.
Viscosity	not applicable
Relative vapour density determined in air	not applicable
Evaporation speed	not applicable
Melting point [°C]	not applicable
Autoignition temperature [°C]	not applicable
Decomposition temperature [°C]	not applicable

9.2 Other information

none



SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.
Risk of bursting.

10.4 Conditions to avoid

Strong heating.
See SECTION 7.2.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Flammable gases/vapours.



SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
inhalative, Based on the available information, the classification criteria are not fulfilled.:
dermal, Based on the available information, the classification criteria are not fulfilled.:
oral, Based on the available information, the classification criteria are not fulfilled.:
Substance
iso-Butane, CAS: 75-28-5
LC50, inhalative, mouse: 1237 mg/l (2h) (Lit.).
Propane, CAS: 74-98-6
LC50, inhalative, Rat: > 1443 mg/l (15 min) (Lit.).
Butane, CAS: 106-97-8
LC50, inhalative, Rat: 658 mg/l (4 h) (Lit.).
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
LD50, dermal, Rabbit: > 5000 mg/kg bw.
LD50, oral, Rat: > 5000 mg/kg bw.
LC50, inhalative, Rat: > 4951 mg/L.
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LD50, dermal, Rabbit: > 5000 mg/kg.
LD50, oral, Rat: > 5000 mg/kg.
LC50, inhalative, Rat: >4951 mg/m ³ .

Serious eye damage/irritation	Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled. Calculation method [RL (EC) No. 1272/2008 Annex I 1.1.3.7]
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are fulfilled. Vapours may cause drowsiness and dizziness. Calculation method [RL (EC) No. 1272/2008 Annex I 1.1.3.7]
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	Frequent persistent contact with the skin can cause skin irritation. The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials. Toxicological data of complete product are not available.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
EL50, (72h), Pseudokirchneriella subcapitata: >1000 mg/l.
LL50, (48h), Daphnia magna: >1000 mg/l.
LL50, (96h), Oncorhynchus mykiss: > 100 mg/l.



12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

not applicable

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Ecotoxicological data are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the disposal contractor/authorities if necessary.
Dispose of as hazardous waste.

Waste no. (recommended)

160504* gases in pressure containers (including halons) containing dangerous substances

Contaminated packaging

Dispose full / partially emptied cartridges as hazardous waste in accordance with official regulations.

Waste no. (recommended)

150110*

SECTION 14: Transport information

14.1 UN number


Transport by land according to ADR/RID 1950


Inland navigation (ADN) 1950


Marine transport in accordance with IMDG 1950


Air transport in accordance with IATA 1950

**14.2 UN proper shipping name**

Transport by land according to ADR/RID	Aerosols
- Classification Code	5F
- Label	
- ADR LQ	1 I
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D)

Inland navigation (ADN)	Aerosols
- Classification Code	5F
- Label	

Marine transport in accordance with IMDG	Aerosols
- EMS	F-D, S-U
- Label	
- IMDG LQ	1 I

Air transport in accordance with IATA	Aerosols, flammable
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	2
Inland navigation (ADN)	2
Marine transport in accordance with IMDG	2.1
Air transport in accordance with IATA	2.1

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

**14.5 Environmental hazards**

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people Observe employment restrictions for young people.

- VOC (2010/75/CE) ca. 98%

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information**16.1 Hazard statements (SECTION 03)**

H412 Harmful to aquatic life with long lasting effects.
 H336 May cause drowsiness or dizziness.
 H226 Flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H280 Contains gas under pressure; may explode if heated.
 H220 Extremely flammable gas.



16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Aerosol 1: H222 Extremely flammable aerosol. (Bridging principle "Aerosols") H229
 Pressurised container: May burst if heated. (Bridging principle "Aerosols")
 STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method [RL (EC) No. 1272/2008 Annex I 1.1.3.7])
 Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 3 deleted: Benzenesulfonic acid, di-C10-14 alkyl derivs., calcium salts
 SECTION 8 been added: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.
 SECTION 8 deleted: Respiratory protection mask in the event of high concentrations.
 SECTION 11 deleted: May produce an allergic reaction.
 SECTION 12 been added: Ecotoxicological data are not available.
 SECTION 12 deleted: Ecological data of complete product are not available.

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