






Safety Data Sheet dated 31/7/2017, version 3

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

- 1.1. Product identifier
Mixture identification:
Trade name: DR 84 SUPER
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified use:
Inhibited acid-based liquid descaler.
Uses advised against:
Any other use different from the identified uses.
- 1.3. Details of the supplier of the safety data sheet
Company:
BARCHEMICALS SRL
VIA S.ALLENDE 14
CASTELNUOVO RANGONE (MO)
ITALY
PHONE. +39 059/536502
FAX. +39 059/536742
www.barchemicals.it
Competent person responsible for the safety data sheet:
barani.corrado@barchemicals.it
- 1.4. Emergency telephone number
Barani Dr.Corrado - MOBILE PHONE. +39 335/6109383

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
EC regulation criteria n°1272/2008 (CLP)
-  Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.
 -  Danger, Eye Dam. 1, Causes serious eye damage.
 -  Warning, STOT SE 3, May cause respiratory irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary statements:

P102 Keep out of reach of children.

P260 Do not breathe vapours.

P280 Wear protective gloves/clothing and eye/face protection.

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P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Special Provisions:

None

Contains

Non-ionic surfactants
 hydrochloric acid ... %
 phosphoric acid ... %, orthophosphoric acid ... %

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:






No other hazards

SECTION 3: Composition/information on ingredients
3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 20% - < 25%	hydrochloric acid ... %	Index 017-002-01-X number: CAS: 7647-01-0 EC: 231-595-7 REACH No.: 01- 2119484862- 27	 3.2/1B Skin Corr. 1B H314  3.8/3 STOT SE 3 H335
>= 15% - < 20%	phosphoric acid ... %, orthophosphoric acid ... %	Index 015-011-00-6 number: CAS: 7664-38-2 EC: 231-633-2 REACH No.: 01- 2119485924- 24	 3.2/1B Skin Corr. 1B H314
>= 1% - < 3%	<input checked="" type="checkbox"/> Non-ionic surfactants	CAS: 166736-08-9 REACH No.: 02- 2119630747- 33	 3.1/4/Oral Acute Tox. 4 H302  3.3/1 Eye Dam. 1 H318

SECTION 4: First aid measures
4.1. Description of first aid measures

In case of skin contact:

Remove contaminated clothing immediately and dispose off safely.
 After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
 Protect uninjured eye.

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In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Rinse well your mouth

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

In case of breathing difficult, bring the injured person into the open air and store it in a comfortable position for breathing. Consult a physician.

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

Contact with the eyes produces redness, pain, severe deep burns and loss of vision.

Ingestion causes severe irritation or chemical burns in the mouth, throat, esophagus and stomach.

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

If swallowed, seek immediate medical attention. Drinking water in large quantities. Do not induce vomiting to the danger of perforation. Keep the patient at rest.

In case of contact with eyes, rinse immediately for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

CO₂ or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Retain contaminated washing water and dispose it.

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

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- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Use localized ventilation system.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Store at room temperature and away from direct sunlight.
Protect against high temperatures.
Keep away from food, drink and feed.
Incompatible materials:
See the next paragraph 10.
Instructions as regards storage premises:
Adequately ventilated premises.
- 7.3. Specific end use(s)
See section 1.2.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
hydrochloric acid ... % - CAS: 7647-01-0
EU - TWA(8h): 8 mg/m³, 5 ppm - STEL: 15 mg/m³, 10 ppm
ACGIH - STEL: Ceiling 2 ppm - Notes: A4 - URT irr
phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2
EU - TWA(8h): 1 mg/m³ - STEL: 2 mg/m³
ACGIH - TWA(8h): 1 mg/m³ - STEL: 3 mg/m³ - Notes: URT, eye and skin irr
- DNEL Exposure Limit Values
hydrochloric acid ... % - CAS: 7647-01-0
Worker Professional: 15 03 - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Professional: 8 03 - Exposure: Human Inhalation - Frequency: Long Term, local effects
phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2
Worker Professional: 1 03 - Consumer: 0.73 03 - Exposure: Human Inhalation - Frequency: Long Term, local effects - Endpoint: Repeated dose toxicity
Worker Professional: 2 03 - Exposure: Human Inhalation - Frequency: Short Term, local effects
- PNEC Exposure Limit Values
hydrochloric acid ... % - CAS: 7647-01-0
Target: Fresh Water - Value: 0.036 mg/l
Target: Marine water - Value: 0.036 mg/l
Target: Microorganisms in sewage treatments - Value: 0.036 mg/l
- 8.2. Exposure controls
Eye/face protection:
Eye glasses with side protection. EN166
Protection for skin:
Clothing resistant to corrosive products CLASS I, EN 340
Protection for hands:
Gloves resistant to chemicals. EN 374
Respiratory protection:
Mask with filter for gases and vapors (EN 14387).
Thermal Hazards:
Not applicable (the product is handled at room temperature)
Environmental exposure controls:

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None
 Appropriate engineering controls:
 None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquid Yellow	--	--
Odour:	Pungent	--	--
Odour threshold:	Not Available	--	--
pH:	<1	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	Not Available	--	--
Flash point:	Not inflammable	--	--
Evaporation rate:	Not Available	--	--
Solid/gas flammability:	Not inflammable	--	--
Upper/lower flammability or explosive limits:	Not inflammable	--	--
Vapour pressure:	Not Available	--	--
Vapour density:	Not Available	--	--
Relative density:	1.20 Kg/l	--	--
Solubility in water:	Complete	--	--
Solubility in oil:	Not soluble	--	--
Partition coefficient (n-octanol/water):	Not Available	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	Not Available	--	--
Viscosity:	Not Available	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Complete	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

May be corrosive to metals.
 The product is not pyrophoric.

10.2. Chemical stability

Stable under recommended storage and handling. Please refer to section 7 of the MSDS.

10.3. Possibility of hazardous reactions

In the presence of chlorine-containing products.

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- 10.4. Conditions to avoid
 - Keep away from heat sources.
 - Avoid direct sunlight.
- 10.5. Incompatible materials
 - Oxidizing agents.
 - concentrated alkali.
 - Products containing chlorine.
- 10.6. Hazardous decomposition products
 - Carbon monoxide
 - Carbon dioxide.
 - phosphorus oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

hydrochloric acid ... % - CAS: 7647-01-0

a) acute toxicity:

Test: LC50 - Route: Inhalation Mist - Species: Rat = 45.6 mg/l - Source: ECHA - Notes:
PERIODO DEL TEST: 5 MIN

b) skin corrosion/irritation:

Test: Skin Corrosive - Route: Skin - Species: Rabbit Yes - Source: PUBBLICAZIONE
1985 (ECHA) - Notes: OECD GUIDELINE 404 (ACUTE DERMAL IRRITATION /
CORROSION) (1981)

c) serious eye damage/irritation:

Test: Eye Corrosive - Species: Rabbit Yes - Source: STUDY REPORT 1976 (ECHA) -
Notes: OECD GUIDELINE 405 (ACUTE EYE IRRITATION / CORROSION)

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: Mouse No - Source: PUBBLICAZIONE 1986
(ECHA) - Notes: OECD GUIDELINE 406 (SKIN SENSITISATION)

f) carcinogenicity:

Test: Carcinogenicity - Species: Rat No - Source: PUBBLICAZIONE 1985 (ECHA)

h) STOT-single exposure:

Test: Respiratory Tract Irritant Yes - Source: ECHA

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2600 mg/kg - Notes: EQUIVALENTE AL
OECD 423

Test: LD50 - Route: Skin - Species: Rabbit = 2740 mg/kg - Source: BIOFAX IND. 2000
(ECHA)

b) skin corrosion/irritation:

Test: Skin Corrosive - Species: Rabbit Yes - Source: STUDY REPORT 1980 (ECHA) -
Notes: 1500.41 IN THE FEDERAL REGISTER VOL. 38

c) serious eye damage/irritation:

Test: Eye Corrosive - Species: Rabbit Yes - Source: STUDY REPORT 1971 (ECHA) -
Notes: CODE OF FEDERAL REGULATIONS

e) germ cell mutagenicity:

Test: Mutagenesis No - Source: STUDY REPORT 2010 (ECHA) - Notes: UNITED
KINGDOM ENVIRONMENTAL MUTAGEN SOCIETY

g) reproductive toxicity:

Test: Reproductive Toxicity - Species: Rat No - Source: STUDY REPORT 2008
(ECHA)

TENSIOATTIVI NON IONICI - CAS: 166736-08-9

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 300 mg/kg

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- b) skin corrosion/irritation:
Test: Skin Corrosive - Route: Skin - Species: Rabbit Negative
 - c) serious eye damage/irritation:
Test: Eye Corrosive - Species: Rabbit Positive
Test: Eye Corrosive - Species: Rabbit Positive
- phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2
LD50 (RABBIT) SKIN: 2740 MG/KG

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

No information is available on the mixture as a whole. This is the information on ecotoxicological effects of the individual components.

hydrochloric acid ... % - CAS: 7647-01-0

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 20.5 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 0.45 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 0.73 mg/l - Duration h: 72

c) Bacteria toxicity:

Endpoint: EC50 - Species: activated sludge = 0.23 mg/l - Notes: (PH 5.2) OECD TG 209

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 75.1 mg/l - Duration h: 96 - Notes: ECHA - OECD GUIDELINE 203 (FISH, ACUTE TOXICITY TEST)

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48 - Notes: OECD GUIDELINE 202 (DAPHNIA SP. ACUTE IMMOBILISATION TEST)

Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72

TENSIOATTIVI NON IONICI - CAS: 166736-08-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Brachydanio rerio > 10 mg/l - Duration h: 96 - Notes: OECD - linea guida 203

Endpoint: EC50 - Species: Daphnia > 10 mg/l - Duration h: 48

Endpoint: EC50 - Species: Scenedesmus subspicatus > 10 mg/l - Duration h: 72 -

Notes: OECD - linea guida 201

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

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- 12.6. Other adverse effects
Il prodotto è nocivo per la vita acquatica in quanto abbassa fortemente il pH

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.
- Additional disposal information:
Retrieve if possible. Send to authorized disposal plants or incineration under controlled conditions. Work according to local and national regulations. Recover if possible. Send to authorized disposal plants or for incineration under controlled conditions. Operate according to local and national regulations.

SECTION 14: Transport information



- 14.1. UN number
ADR-UN Number: 3264
IATA-UN Number: 3264
IMDG-UN Number: 3264
- 14.2. UN proper shipping name
ADR-Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(hydrochloric acid ... %, phosphoric acid ... %, orthophosphoric acid ... %)
IATA-Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(hydrochloric acid ... %, phosphoric acid ... %, orthophosphoric acid ... %)
IMDG-Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(hydrochloric acid ... %, phosphoric acid ... %, orthophosphoric acid ... %)
- 14.3. Transport hazard class(es)
ADR-Class: 8
ADR - Hazard identification number: 88
IATA-Class: 8
IATA-Label: 8
IMDG-Class: 8
- 14.4. Packing group
ADR-Packing Group: II
IATA-Packing group: II
IMDG-Packing group: II
- 14.5. Environmental hazards
ADR-Environmental Pollutant: No
IMDG-Marine pollutant: No
- 14.6. Special precautions for user
ADR-Subsidiary risks: -
ADR-S.P.: 274
ADR-Transport category (Tunnel restriction code): (E)
IATA-Passenger Aircraft: 850
IATA-Subsidiary risks: -
IATA-Cargo Aircraft: 854
IATA-S.P.: A3 A803
IATA-ERG: 8L

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IMDG-EmS: F-A , S-B
 IMDG-Subsidiary risks: -
 IMDG-Stowage and handling: Category B
 IMDG-Segregation: Clear of living quarters.
 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
 N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
 Dir. 98/24/EC (Risks related to chemical agents at work)
 Dir. 2000/39/EC (Occupational exposure limit values)
 Regulation (EC) n. 1907/2006 (REACH)
 Regulation (EC) n. 1272/2008 (CLP)
 Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 Regulation (EU) 2015/830
 Regulation (EU) n. 286/2011 (ATP 2 CLP)
 Regulation (EU) n. 618/2012 (ATP 3 CLP)
 Regulation (EU) n. 487/2013 (ATP 4 CLP)
 Regulation (EU) n. 944/2013 (ATP 5 CLP)
 Regulation (EU) n. 605/2014 (ATP 6 CLP)
 Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

None

SECTION 16: Other information

For professional use.

Full text of phrases referred to in Section 3:

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A

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Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3

Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking
 SECTION 2: Hazards identification
 SECTION 3: Composition/information on ingredients
 SECTION 4: First aid measures
 SECTION 5: Firefighting measures
 SECTION 6: Accidental release measures
 SECTION 9: Physical and chemical properties
 SECTION 11: Toxicological information
 SECTION 12: Ecological information
 SECTION 13: Disposal considerations
 SECTION 15: Regulatory information

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
 Commission of the European Communities
 SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
 Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

For professional use.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 CAS: Chemical Abstracts Service (division of the American Chemical Society).
 CLP: Classification, Labeling, Packaging.
 DNEL: Derived No Effect Level.
 EINECS: European Inventory of Existing Commercial Chemical Substances.
 GefStoffVO: Ordinance on Hazardous Substances, Germany.
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
 IATA: International Air Transport Association.
 IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 ICAO: International Civil Aviation Organization.
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
 IMDG: International Maritime Code for Dangerous Goods.
 INCI: International Nomenclature of Cosmetic Ingredients.
 KSt: Explosion coefficient.
 LC50: Lethal concentration, for 50 percent of test population.
 LD50: Lethal dose, for 50 percent of test population.
 PNEC: Predicted No Effect Concentration.
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

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STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average
WGK: German Water Hazard Class.