

## 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade Name: Creatinina Reagent R1

Article n°: 1030XXX

MS: 80115310057

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

Reagent for *in-vitro* diagnostics in human samples

For professional use only.

### 1.3 Manufacturer

Kovalent do Brasil Ltda.

Rua Cristóvão Sardinha, 110 – Jd. Bom Retiro – São Gonçalo – RJ – Brasil.

Tel: +(55 21) 2623-1367

e-mail: [kovalent@kovalent.com.br](mailto:kovalent@kovalent.com.br)

### 1.4 Emergency telephone number

Tel: +(55 21) 2623-1367 – Costumer Service from 8am to 5pm

0800 015 1414

### In case of emergency – 24 hours service

0800-722-6001 – RENACIAT (Rede Nacional de Centros de Informação e Assistência Toxicológica)

## 2 Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to ABNT NBR 14725

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

### 2.2 Label elements

Labelling (GHS)



Signal word:

Warning

Hazard statements:

H290

May be corrosive to metals.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

Precautionary statements:

P234

Keep only in original packaging.

P264

Wash hands and face thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection.

P302+P352

IF ON SKIN: Wash with plenty of water/soap.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P390

Absorb spillage to prevent material damage.

### 2.3 Other hazards

A corrosive effect cannot be ruled out because of the pH value.

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment: No data available

### 3 Composition/information on ingredients

#### 3.1 Substances

Not applicable

#### 3.2 Mixtures

Chemical characterization: Aqueous solution

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 215-185-5 CAS 1310-73-2	Sodium hydroxide	0,5 - 1,5 %	Met. Corr. 1; H290. Skin Corr. 1A; H314. Specific concentration limits (SCL): Skin Corr. 1A; H314: $C \geq 5\%$ / Skin Corr. 1B; H314: $2\% \leq C < 5\%$ / Skin Irrit. 2; H315: $0,5\% \leq C < 2\%$ / Eye Irrit. 2; H319: $0,5\% \leq C < 2\%$

Full text of H- and EUH-statements: see section 16.

### 4 First aid measures

#### 4.1 Description of first aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand.
In case of inhalation:	Move victim to fresh air, put at rest and loosen restrictive clothing. Seek medical attention.
Following skin contact:	Take off immediately all contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water. Cover with sterile dressing material to protect against infection. Seek medical attention.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Risk of perforation! Do not try to neutralize. Immediately get medical attention.

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

Causes skin irritation. Causes serious eye irritation.

A corrosive effect cannot be ruled out because of the pH value. May cause respiratory irritation.

In case of ingestion: Irritant up to corrosive.

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

Treat symptomatically.

### 5 Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media: Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

#### 5.2 Special hazards arising from the substance or mixture

Fires in the immediate vicinity may cause the development of dangerous vapours.

In the event of a fire, the following may be produced when the water evaporates: Sodium compounds, carbon monoxide and carbon dioxide.

#### 5.3 Advice for firefighters

Special protective equipment for firefighters:

In case of surrounding fires: Wear a self-contained breathing apparatus and chemical protective clothing.

## 6 Accidental release measures

### 6.1 Personal precautions, protective equipment, and emergency procedures

Avoid contact with skin and eyes. Provide adequate ventilation. Wear appropriate protective equipment. Do not breathe vapours. Keep unprotected people away. Take off immediately all contaminated clothing and wash it before reuse.

### 6.2 Environmental precautions

Do not allow to enter into groundwater, surface water or drains.

### 6.3 Methods and material for containment and cleaning up

Dilute with plenty of water.

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance. Final cleaning.

Special danger of slipping by leaking/spilling product.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## 7 Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed. Do not breathe vapours. Avoid contact with skin and eyes. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Have eye wash bottle or eye rinse ready at workplace.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep containers tightly closed and at a temperature between 2 °C and 8 °C.

Protect from light. Do not freeze. Keep away from heat. Store containers in upright position.

Unsuitable materials: Light metals.

Hints on joint storage:

Do not store together with ammonium compounds or acids.

Keep away from food, drink and animal feeding stuffs.

Storage Class:

12 = Non-combustible liquids.

### 7.3 Specific end use(s)

No information available.

## 8 Exposure controls/personal protection

### 8.1 Control parameters

Additional information:

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed.

#### Personal protection equipment

##### Occupational exposure controls

Respiratory protection:

Use a breathing protection against vapours/aerosol.

Use filter type (A-P2/P3) according to EN 14387.

Hand protection:

Protective gloves according to EN 374.

Glove material:

Nitrile rubber. Layer thickness: 0.11 mm. Breakthrough time: >480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Do not breathe vapours. Do not get in eyes, on skin, or on clothing. Take off immediately all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Have eye wash bottle or eye rinse ready at workplace.

#### Environmental exposure controls

Refer to "6.2 Environmental precautions".

## 9 Physical and chemical properties

Physical state at 20 °C and 101.3 kPa:	liquid
Colour:	colourless, clear
Odour:	no characteristic odour
Odour threshold:	No data available
pH:	at 25 °C: 13.0
Melting point/freezing point:	approx. 0 °C
Initial boiling point and boiling range:	approx. 100 °C
Flash point/flash point range:	not combustible
Evaporation rate:	No data available
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: 1.0075 g/mL
Water solubility:	at 20 °C: completely miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity	No data available
Particle characteristics:	Not applicable
Auto-ignition temperature:	No data available
Explosive properties:	No data available
Oxidizing characteristics:	No data available
Additional information:	No data available

## 10 Stability and reactivity

### 10.1 Reactivity

May be corrosive to metals.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Reacts with ammonium compounds: Formation of ammonia.

Reacts with light metals: Formation of hydrogen.

### 10.4 Conditions to avoid

Protect from frost, heat and sunlight.

### 10.5 Incompatible materials

Acids, ammonium compounds

### 10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

## 11 Toxicological information

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral):	Lack of data.
Acute toxicity (dermal):	Lack of data.
Acute toxicity (inhalative):	Lack of data.
Skin corrosion/irritation:	Skin Irrit. 2; H315 = Causes skin irritation.
Serious eye damage/irritation:	Eye Irrit. 2; H319 = Causes serious eye irritation.
Sensitisation to the respiratory tract:	Lack of data.
Skin sensitisation:	Lack of data.
Germ cell mutagenicity/Genotoxicity:	Lack of data.
Carcinogenicity:	Lack of data.
Reproductive toxicity:	Lack of data.
Effects on or via lactation:	Lack of data.
Specific target organ toxicity (single exposure):	Lack of data.
Specific target organ toxicity (repeated exposure):	Lack of data.
Aspiration hazard:	Lack of data.

Endocrine disrupting properties: No data available

Symptoms: A corrosive effect cannot be ruled out because of the pH value. May cause respiratory irritation.  
In case of ingestion: Irritant up to corrosive.  
After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

## 12 Ecological information

### 12.1 Toxicity

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value.  
Water hazard class: 1 - Slightly hazardous to water.

### 12.2 Persistence and degradability

Further details: Methods for the determination of biodegradability are not applicable to inorganic substances

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Other adverse effects

General information:

Do not allow to enter groundwater, surface water or drains.

### 13 Disposal considerations

#### 13.1 Waste treatment methods

Product:

Special waste. Dispose of waste according to applicable legislation.

Package:

Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

Additional information:

Do not reuse empty containers.

### 14 Transport information

#### 14.1 UN number

ADR/RID, IMDG, IATA, ANTT:

UN 1824

#### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA, ANTT:

UN 1824, SODIUM HYDROXIDE SOLUTION

#### 14.3 Transport hazard class(es)

ADR/RID:

Class 8, Code: C5

IMDG:

Class 8, Subrisk -

IATA:

Class 8

ANTT:

Class 8



#### 14.4 Risk Number

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#### 14.5 Packing group

ADR/RID, IMDG, IATA, ANTT:

III

#### 14.6 Environmental hazards

Dangerous for the environment:

Substance/mixture is not environmentally hazardous according to regulations.

Marine pollutant:

No

#### 14.7 Special precautions for user

##### Land transport (ADR/RID)

Warning board:

ADR/RID: Kemmler-number 80, UN number UN 3264

Hazard label:

8

Limited quantities:

5 L

EQ:

E1

Package - Instructions:

P001 IBC03 LP01 R001

Special provisions for packing together:

MP19

Portable tanks - Instructions:

T4

Portable tanks - Special Provisions:

TP1

Tank coding:

L4BN

Tunnel restriction code:

E

##### Inland waterway craft (ADN)

Hazard label:

8

Limited quantities:

5 L

EQ:

E1

Transport permitted:

T

Equipment necessary:

PP - EP

##### Sea transport (IMDG)

EmS:

F-A, S-B

Special Provisions:	223
Limited quantities:	5 L
Excepted quantities:	E1
Package - Instructions:	P001, LP01
Package - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T4
Tank instructions - Provisions:	TP1
Stowage and handling:	Category A.
Segregation:	SG35
Properties and observations:	Colourless liquid. Corrosive to aluminium, zinc and tin. Reacts with ammonium salts, evolving ammonia gas. Causes burns to skin, eyes and mucous membranes. Reacts violently with acids.
Segregation group:	18

#### Air transport (IATA)

Hazard label:	Corrosive
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft:	Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only:	Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L
Special Provisions:	A3 A803
Emergency Response Guide-Code (ERG):	8L

## 15 Regulatory information

- Product produced in accordance with the requirements established by RDC 665 of 30/03/2022 and with labeling information in accordance with RDC 206 of 17/11/2006.
- For more details on product disposal refer to RDC 222 of 28/03/2018 and NBR 10004.
- This safety data sheet was prepared in accordance with ABNT/NBR 14725:23.

## 16 Other information

The above information is considered correct but is not intended to be complete and should be used only as a guide. Kovalent is not responsible for any damage resulting from handling or use.

In article XXX: The three X are for the volume.

#### Wording of the H-phrases under paragraph 2 and 3:

H290 = May be corrosive to metals.  
H314 = Causes severe skin burns and eye damage.  
H315 = Causes skin irritation.  
H319 = Causes serious eye irritation.

#### Abbreviations and acronyms:

ABNT: Associação Brasileira de Normas Técnicas / National Standards Forum  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
ANTT: Agência Nacional de Transporte Terrestre / National Agency of Transportation by Road  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EN: European Standard  
EQ: Excepted quantities

EU: European Union  
Eye Irrit.: Eye irritation  
GHS: Globally Harmonized System  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
Met. Corr.: Corrosive to metals  
MS: Anvisa's Registry Code  
NBR: Brazilian technical ordinance  
OSHA: Occupational Safety and Health Administration  
pH: Potential of Hydrogen  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
RDC: Resolution from the Directory Board  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
Skin Corr.: Skin corrosion  
Skin Irrit.: Skin irritation  
TRGS: Technical Rules for Hazardous Substances  
UN: United Nations



## 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade Name: Creatinina Reagent R2

Article n°: 1030XXX

MS: 80115310057

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

Reagent for *in-vitro* diagnostics in human samples

For professional use only.

### 1.3 Manufacturer

Kovalent do Brasil Ltda.

Rua Cristóvão Sardinha, 110 – Jd. Bom Retiro – São Gonçalo – RJ – Brasil.

Tel: +(55 21) 2623-1367

e-mail: [kovalent@kovalent.com.br](mailto:kovalent@kovalent.com.br)

### 1.4 Emergency telephone number

Tel: +(55 21) 2623-1367 – Customer Service from 8am to 5pm

0800 015 1414

### In case of emergency – 24 hours service

0800-722-6001 – RENACIAT (Rede Nacional de Centros de Informação e Assistência Toxicológica)

## 2 Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to ABNT NBR 14725

H290 May be corrosive to metals.

### 2.2 Label elements

Labelling (GHS)



Signal word:

Warning

Hazard statements:

H290 May be corrosive to metals.

Precautionary statements:

P234 Keep only in original packaging.  
P280 Wear protective gloves/protective clothing/eye protection  
P390 Absorb spillage to prevent material damage.

### 2.3 Other hazards

A corrosive effect cannot be ruled out because of the pH value.

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment: No data available

## 3 Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical characterization:

Aqueous solution

## Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 201-865-9 CAS 88-89-1	Picric acid	< 1 %	Expl. 1.1; H201. Acute Tox. 3; H301. Acute Tox. 3; H311. Acute Tox. 3; H331.

Full text of H- and EUH-statements: see section 16.

## 4 First aid measures

### 4.1 Description of first aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand.
In case of inhalation:	Move victim to fresh air, put at rest and loosen restrictive clothing. Seek medical aid in case of troubles.
Following skin contact:	Take off immediately all contaminated clothing and wash it before reuse. Clean with plenty of water. If possible, also wash with polyethylene glycol 400. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently seek the immediate attention of an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Do not try to neutralize. Seek medical attention.

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

A corrosive effect cannot be ruled out because of the pH value. Can cause skin, eye, and respiratory tract irritation.  
May be harmful if swallowed, in contact with skin or if inhaled.

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

Treat symptomatically.

## 5 Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:	Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.
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### 5.2 Special hazards arising from the substance or mixture

Fires in the immediate vicinity may cause the development of dangerous vapours.  
In the event of a fire, the following may be produced when the water evaporates: Nitrogen oxides (NOx), carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:	In case of surrounding fires: Wear a self-contained breathing apparatus and chemical protective clothing.
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## 6 Accidental release measures

### 6.1 Personal precautions, protective equipment, and emergency procedures

Avoid contact with skin and eyes. Provide adequate ventilation. Do not breathe mist/vapours/spray.  
Keep unprotected people away. Wear appropriate protective equipment.  
Take off immediately all contaminated clothing and wash it before reuse.

### 6.2 Environmental precautions

Do not allow to enter into groundwater, surface water or drains.

### 6.3 Methods and material for containment and cleaning up

Dilute with plenty of water.

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.

Store in special closed containers and dispose of according to ordinance. Final cleaning.

Special danger of slipping by leaking/spilling product.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## 7 Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/spray.

Avoid contact with skin and eyes. Wear appropriate protective equipment. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at workplace.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep containers tightly closed and at a temperature between 2 °C and 8 °C.

Do not freeze. Keep away from heat.

Keep only in original container. Unsuitable materials: Metals

Hints on joint storage:

Do not store together with alkalis.

Keep away from food, drink, and animal feeding stuffs.

Storage class:

Non-combustible liquids.

### 7.3 Specific end use(s)

No information available.

## 8 Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit Value
88-89-1	Picric acid	Europe: IOELV: TWA	0,1 mg/m <sup>3</sup>
		Germany: TRGS 900 Kurzzeit	0,1 mg/m <sup>3</sup>
		Germany: TRGS 900 Langzeit	0,1 mg/m <sup>3</sup>
			(Inhalable fraction; may be absorbed through the skin)
			(Inhalable fraction; may be absorbed through the skin)

### 8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed.

#### Personal protection equipment

#### Occupational exposure controls

Respiratory protection:

Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type (A-P2/P3) according to EN 14387.

Hand protection:

Protective gloves according to EN 374.

Glove material:

Butyl caoutchouc (butyl rubber). Breakthrough time: >480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection:

Tightly sealed goggles according to EN 166.

Body protection:

Wear suitable protective clothing.

General protection and hygiene measures:

Do not breathe mist/vapours/spray. Avoid contact with skin and eyes. Wash hands before

breaks and after work. Do not eat, drink or smoke when using this product. Take off immediately all contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at workplace.

#### Environmental exposure controls

Refer to "6.2 Environmental precautions".

## 9 Physical and chemical properties

Physical state at 20 °C and 101.3 kPa:	liquid
Color:	yellow, clear
Odour:	no characteristic odour
Odour threshold:	No data available
pH:	at 25 °C: 1.7
Melting point/freezing point:	approx. 0 °C
Initial boiling point and boiling range:	approx. 100 °C
Flash point/flash point range:	not combustible
Evaporation rate:	No data available
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: 1.0009 g/mL
Water solubility:	at 20 °C: completely miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Particle characteristics:	Not applicable
Oxidizing characteristics:	No data available
Additional information:	No data available

## 10 Stability and reactivity

### 10.1 Reactivity

May be corrosive to metals.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4 Conditions to avoid

Protect against heat / sun rays.

### 10.5 Incompatible materials

Alkalis, metals

### 10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

## 11 Toxicological information

Acute toxicity (oral):	Lack of data.
Acute toxicity (dermal):	Lack of data.
Acute toxicity (inhalative):	Lack of data.
Skin corrosion/irritation:	Lack of data.
Serious eye damage/irritation:	Lack of data.
Sensitisation to the respiratory tract:	Lack of data.
Skin sensitisation:	Lack of data.
Germ cell mutagenicity/Genotoxicity:	Lack of data.
Carcinogenicity:	Lack of data.
Reproductive toxicity:	Lack of data.
Effects on or via lactation:	Lack of data.
Specific target organ toxicity (single exposure):	Lack of data.
Specific target organ toxicity (repeated exposure):	Lack of data.
Aspiration hazard:	Lack of data.

Endocrine disrupting properties: No data available

Other information: The following applies to Picric acid in general:  
After resorption: Highly toxic (1 - 2 g compared to pure substance).  
Danger of cutaneous absorption.

Symptoms: A corrosive effect cannot be ruled out because of the pH value. Can cause skin, eye, and respiratory tract irritation.  
May be harmful if swallowed, in contact with skin or if inhaled.  
After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

## 12 Ecological information

### 12.1 Toxicity

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value.  
Water hazard class: 1 - Slightly hazardous to water

### 12.2 Persistence and degradability

Further details: No data available

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: No data available

### 12.4 Mobility in soil

No data available

### 12.6 Other adverse effects

General information: Do not allow to enter into groundwater, surface water or drains.

## 13 Disposal considerations

### 13.1 Waste treatment methods

Product:	Special waste. Dispose of waste according to applicable legislation.
Package:	Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.
Additional information:	Do not reuse empty containers.

## 14 Transport information

### 14.1 UN number

ADR/RID, IMDG, IATA, ANTT:	UN 3265
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### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA, ANTT:	UN 3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Picric acid mixture)
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### 14.3 Transport hazard class(es)

ADR/RID:	Class 8, Code: C3
IMDG:	Class 8, Subrisk -
IATA:	Class 8
ANTT:	Class 8



### 14.4 Risk Number

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### 14.5 Packing group

ADR/RID, IMDG, IATA, ANTT:	III
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### 14.6 Environmental hazards

Dangerous for the environment:	Substance/mixture is not environmentally hazardous according to regulations
Marine pollutant:	No

### 14.7 Special precautions for user

#### Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 80, UN number UN 3265
Hazard label:	8
Special Provisions:	274
Limited quantities:	5 L
EQ:	E1
Package - Instructions:	P001 IBC03 LP01 R001
Special provisions for packing together:	MP19
Portable tanks - Instructions:	T7
Portable tanks - Special Provisions:	TP1 TP28
Tank coding:	L4BN
Tunnel restriction code:	E

#### Inland waterway craft (ADN)

Hazard label:	8
Special Provisions:	274
Limited quantities:	5 L
EQ:	E1
Transport permitted:	T
Equipment necessary:	PP - EP

#### Sea transport (IMDG)

EmS:	F-A, S-B
Special Provisions:	223 274
Limited quantities:	5 L
Excepted quantities:	E1
Package - Instructions:	P001, LP01

[www.kovalent.com.br](http://www.kovalent.com.br)

Package - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP1, TP28
Stowage and handling:	Category A. SW2
Segregation:	SG36 SG49
Properties and observations:	Causes burns to skin, eyes and mucous membranes.
Segregation group:	1

**Air transport (IATA)**

Hazard label:	Corrosive
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft:	Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only:	Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L
Special Provisions:	A3 A803
Emergency Response Guide-Code (ERG):	8L

## 15 Regulatory information

- Product produced in accordance with the requirements established by RDC 665 of 30/03/2022 and with labeling information in accordance with RDC 206 of 17/11/2006.
- For more details on product disposal refer to RDC 222 of 28/03/2018 and NBR 10004.
- This safety data sheet was prepared in accordance with ABNT/NBR 14725:23.

## 16 Other information

The above information is considered correct but is not intended to be complete and should be used only as a guide. Kovalent is not responsible for any damage resulting from handling or use.

In article XXX: The three X are for the volume.

**Wording of the H-phrases under paragraph 2 and 3:**

H201 = Explosive; mass explosion hazard.  
H290 = May be corrosive to metals.  
H301 = Toxic if swallowed.  
H311 = Toxic in contact with skin.  
H331 = Toxic if inhaled.

**Abbreviations and acronyms:**

ABNT: Associação Brasileira de Normas Técnicas / National Standards Forum  
Acute Tox.: Acute toxicity  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
ANTT: Agência Nacional de Transporte Terrestre / National Agency of Transportation by Road  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level EC: European Community  
EN: European Standard  
EQ: Excepted quantities  
EU: European Union  
Expl.: Explosives  
GHS: Globally Harmonized System  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IMDG Code: International Maritime Dangerous Goods Code

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

Met. Corr.: Corrosive to metals

MS: Anvisa's Registry Code

NBR: Brazilian technical ordinance

OEL: Occupational Exposure Limit Value

OSHA: Occupational Safety and Health Administration

PBT: Persistent, bioaccumulative and toxic

pH: Potential of Hydrogen

PNEC: Predicted no-effect concentration

RDC: Resolution from the Directory Board

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail

TLV: Threshold Limit Value

TRGS: Technical Rules for Hazardous Substances

UN: United Nations

WEL: Workplace Exposure Limit



## 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade Name: Creatinina Standard

Article n°: 1030XXX

MS: 80115310057

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

Reagent for *in-vitro* diagnostics in human samples

For professional use only.

### 1.3 Manufacturer

Kovalent do Brasil Ltda.

Rua Cristóvão Sardinha, 110 – Jd. Bom Retiro – São Gonçalo – RJ – Brasil.

Tel: +(55 21) 2623-1367

e-mail: [kovalent@kovalent.com.br](mailto:kovalent@kovalent.com.br)

### 1.4 Emergency telephone number

Tel: +(55 21) 2623-1367 – Customer Service from 8am to 5pm

0800 015 1414

### In case of emergency – 24 hours service

0800-722-6001 – RENACIAT (Rede Nacional de Centros de Informação e Assistência Toxicológica)

## 2 Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to ABNT NBR 14725

This mixture is classified as not hazardous.

### 2.2 Label elements

Labelling (GHS)

Hazard statements: Not applicable

Precautionary statements: Not applicable

### 2.3 Other hazards

Due to its pH value (see section 9), irritation of the skin and eyes cannot be ruled out.

Endocrine disrupting properties, Results of PBT and vPvB assessment: No data available

## 3 Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical characterization: Aqueous solution.

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 231-595-7 CAS 7647-01-0	Hydrochloric acid	< 0,2 %	Met. Corr. 1; H290. Skin Corr. 1B; H314. STOT SE 3; H335. Specific concentration limits (SCL): Skin Corr. 1B; H314: C ≥ 25 % / Skin Irrit. 2; H315: 10 % ≤ C < 25 % / Eye Irrit. 2; H319: 10 % ≤ C < 25 % / STOT SE 3; H335: C ≥ 10 %

Full text of H- and EUH-statements: see section 16.

## 4 First aid measures

### 4.1 Description of first aid measures

In case of inhalation:	Move victim to fresh air, put at rest and loosen restrictive clothing. Seek medical aid in case of troubles.
Following skin contact:	Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Do not try to neutralize. Seek medical attention. A corrosive effect cannot be ruled out because of the pH value.

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

In case of ingestion: May cause irritations.  
After contact with skin: May cause irritations.  
After eye contact: May cause irritations.

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

Treat symptomatically.

## 5 Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

### 5.2 Special hazards arising from the substance or mixture

Fires in the immediate vicinity may cause the development of dangerous vapours.  
In case of fire may be liberated: Hydrogen chloride.

### 5.3 Advice for firefighters

Special protective equipment for firefighters: Wear self-contained breathing apparatus.  
Additional information: Do not allow fire water to penetrate into surface or ground water.

## 6 Accidental release measures

### 6.1 Personal precautions, protective equipment, and emergency procedures

Avoid contact with skin and eyes.

### 6.2 Environmental precautions

Do not allow to enter into groundwater, surface water or drains.

### 6.3 Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.  
Store in special closed containers and dispose of according to ordinance. Wash spill area with plenty of water.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## 7 Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation. Avoid contact with skin and eyes.

## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers: Keep containers tightly closed and at a temperature between 2 °C and 8 °C.  
Protect from light.  
Storage class: Non-combustible liquids.

## 7.3 Specific end use(s)

No information available.

# 8 Exposure controls/personal protection

## 8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7647-01-0	Hydrochloric acid	Europe: IOELV: STEL	15 mg/m <sup>3</sup> ; 10 ppm (Hydrogen chloride)
		Europe: IOELV: TWA	8 mg/m <sup>3</sup> ; 5 ppm (Hydrogen chloride)
		Germany: TRGS 900 Kurzzeit	6 mg/m <sup>3</sup> ; 4 ppm (Hydrogen chloride)
		Germany: TRGS 900 Langzeit	3 mg/m <sup>3</sup> ; 2 ppm (Hydrogen chloride)

## 8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

### Personal protection equipment

#### Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.  
Combination filter E-P2/P3 according to EN 141.

Hand protection: Protective gloves according to EN 374.

Glove material: Nitrile rubber. Breakthrough time: >480 min.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:  
Take off immediately all contaminated clothing.  
Wash hands before breaks and after work.  
Provide a conveniently located eye rinse station.

### Environmental exposure controls

Refer to "6.2 Environmental precautions".

# 9 Physical and chemical properties

Physical state at 20 °C and 101.3 kPa: liquid

Colour: colourless, clear

Odour: no characteristic odour

Odour threshold: No data available

pH: at 25 °C: 1.7

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point/flash point range: not combustible

Evaporation rate: No data available

Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: 1.000 g/mL
Water solubility:	at 20 °C: completely miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Particle characteristics:	Not applicable
Oxidizing characteristics:	No data available
Additional information:	No data available

## 10 Stability and reactivity

### 10.1 Reactivity

Refer to 10.3

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known.

### 10.4 Conditions to avoid

Protect against heat / sun rays.

### 10.5 Incompatible materials

Strong acids and alkalis.

### 10.6 Hazardous decomposition products

No decomposition when used properly.

Thermal decomposition: No data available

## 11 Toxicological information

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral):	Lack of data.
Acute toxicity (dermal):	Lack of data.
Acute toxicity (inhalative):	Lack of data.
Skin corrosion/irritation:	Lack of data.
Serious eye damage/irritation:	Lack of data.
Sensitisation to the respiratory tract:	Lack of data.
Skin sensitisation:	Lack of data.
Germ cell mutagenicity/Genotoxicity:	Lack of data.

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Carcinogenicity:	Lack of data.
Reproductive toxicity:	Lack of data.
Effects on or via lactation:	Lack of data.
Specific target organ toxicity (single exposure):	Lack of data.
Specific target organ toxicity (repeated exposure):	Lack of data.
Aspiration hazard:	Lack of data.
Endocrine disrupting properties:	No data available
Symptoms:	In case of ingestion: May cause irritations. After contact with skin: May cause irritations. After eye contact: May cause irritations.

## 12 Ecological information

### 12.1 Toxicity

Aquatic toxicity:	Harmful effects on water organisms by modification of pH-value. Water hazard class: 1 - Slightly hazardous to water
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### 12.2 Persistence and degradability

Further details:	No data available
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### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:	No data available
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### 12.4 Mobility in soil

No data available

### 12.5 Other adverse effects

General information:	Do not allow to enter into groundwater, surface water or drains.
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## 13 Disposal considerations

### 13.1 Waste treatment methods

Product:	Special waste. Dispose of waste according to applicable legislation.
Package:	Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.
Additional information:	Do not reuse empty containers.

## 14 Transport information

### 14.1 UN number

ADR/RID, IMDG, IATA, ANTT:	Not applicable
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### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA, ANTT:	Not restricted
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### 14.3 Transport hazard class(es)

ADR/RID:	Not applicable
IMDG:	Not applicable
IATA:	Not applicable
ANTT:	Not applicable

### 14.4 Risk Number

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### 14.5 Packing group

ADR/RID, IMDG, IATA, ANTT:	Not applicable
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#### 14.6 Environmental hazards

Dangerous for the environment:  
Marine pollutant:

Substance/mixture is not environmentally hazardous according to regulations  
No

#### 14.7 Special precautions for user

No dangerous good in sense of these transport regulations.  
Corrosion rate Aluminum/iron < 6,25 mm/a.

### 15 Regulatory information

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### 16 Other information

The above information is considered correct but is not intended to be complete and should be used only as a guide. Kovalent is not responsible for any damage resulting from handling or use.

In article XXX: The three X are for the volume.

#### Wording of the H-phrases under paragraph 2 and 3:

H290 = May be corrosive to metals.

H314 = Causes severe skin burns and eye damage.

H335 = May cause respiratory irritation.

#### Abbreviations and acronyms:

ABNT: Associação Brasileira de Normas Técnicas / National Standards Forum  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
ANTT: Agência Nacional de Transporte Terrestre / National Agency of Transportation by Road  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level EC: European Community  
EN: European Standard  
EQ: Excepted quantities  
EU: European Union  
GHS: Globally Harmonized System  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
Met. Corr.: Corrosive to metals  
MS: Anvisa's Registry Code  
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OEL: Occupational Exposure Limit Value  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
pH: Potential of Hydrogen  
PNEC: Predicted no-effect concentration  
RDC: Resolution from the Directory Board  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
Skin Corr.: Skin corrosion  
STOT SE: Specific target organ toxicity - single exposure

TLV: Threshold Limit Value

TRGS: Technical Rules for Hazardous Substances

UN: United Nations

WEL: Workplace Exposure Limit