

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

1.1 Product identifier

Trade Name: ASO Reagent R1

Article n°: 4060XXX

MS: 80115310079

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

In vitro diagnostics.

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

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

Hazardous properties cannot be excluded.

Sodium azide can form explosive azides when containing heavy metals such as copper or lead.

3 Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical characterization: Mixture

Description:

Mixture of the substances listed below with harmless products.

Hazardous components:

Identifiers	Designation Classification	Content
CAS: 26628-22-8	Sodium azide Acute Tox. Oral 4; H302 Acute Aquatic Tox 3; H412	< 0.1 %

4 First aid measures

4.1 Description of first aid measures

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General information:	Remove contaminated clothing
After inhalation:	Supply fresh air, consult doctor in case breathing problems develop. Unconscious: maintain adequate airway and respiration.
After skin contact:	Wash with soap and water. If symptoms persist, consult doctor.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. If symptoms persist, consult ophthalmologist. Do not apply neutralizing agents.
After swallowing:	Rinse out mouth and then drink plenty of water. In case of persistent symptoms, consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

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 agents: Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture.

Special hazard caused by the material, its products of combustion or flue gases: Nitrogen oxides (NO_x), Oxides of phosphorus (P_xO_y) Carbon monoxide (CO) and Carbon dioxide (CO₂)

5.3 Advice for firefighters

Protective equipment: Put on breathing apparatus. Gas-tight suit.

Additional information: Collect contaminated firefighting water separately. It must not enter drains.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Do not breathe vapors. Avoid skin and eye contact.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of materials or solid waste in an authorized location. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

7 Handling and storage

7.1 Precautions for safe handling

Observe normal to strict hygiene standards. Handle and open the container with care. Ensure good ventilation / exhaust at the workplace. Do not inhale aerosols. Avoid prolonged or repeated skin contact. Avoid contact with eyes. Make sure that all applicable workplace limits are observed.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and containers: Keep container tightly sealed and store in a well-ventilated place. Protect from heat and direct sunlight.
Store in a cool place.
Recommend storage temperature: 2 - 8 °C

8 Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical No data available.

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systems:

Components with critical values that require monitoring at the workplace:

Designation	Type	Limit value
Sodium azide	WEL (Great Britain)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³
	TLV (European Union)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ Skin

Additional information:

The list that were valid during the compilation were used as basis

8.2 Engineering control measures

Provide adequate ventilation, and local exhaust if necessary.

8.3 Exposure controls

General protective and hygienic measures: Keep away from foodstuffs, beverages and food.

Do not inhale gases / fumes / aerosols.

Avoid close or long-term contact with the skin.

Avoid contact with the eyes.

Wash hands during breaks and at the end of the work.

Protection of hands:

Protective gloves. The glove material has to be impermeable and resistant to the product / the substance / the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Check the permeability prior to each new use of the glove.

Material of gloves:

The selection of the suitable gloves does not only depend on the material but also on further marks of quality varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Protection of eyes:

Safety glasses.

Protection of skin:

Wear suitable protective clothing: lab coat.

Breathing equipment:

If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

General information

Appearance: Physical state at 20°C and 101.3 kPa: Liquid

Colour: Clear

Odour: Odourless

Odour threshold: No data available

pH value: No data available

Melting/freezing point: No data available

Initial boiling point and boiling range: No data available

Evaporation rate: No data available

Flash point/flash point range:	Not applicable
Self-inflammability:	Product is not self-igniting.
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Solubility in / Miscibility with water:	Soluble
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:	Product is not explosive
Oxidizing characteristics:	No data available

10 Stability and reactivity

10.1 Reactivity

Stable reactivity until expiry date if stored in recommended conditions.

10.2 Chemical stability

Stable until expiry date under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Thermal decomposition/conditions to be avoided:
Sunlight
Heat

10.5 Incompatible materials

Materials to be avoided:
Strong oxidizing agents
Strong acids
Heavy metals

10.6 Hazardous decomposition products

Dangerous reactions may form very sensitive explosive metallic compounds.

Dangerous products of decomposition: Nitrogen oxides (NO_x), Oxides of phosphorus (P_xO_y) Carbon monoxide (CO) and Carbon dioxide (CO₂)

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

Sodium azide	Oral	LD50	27 mg/kg (rat)
	Dermal	LD50	20 mg/kg (rabbit)

Skin corrosion/irritation:	No irritating effect
Serious eye damage/eye irritation:	No irritating effects
Respiratory or skin sensitization:	No known sensitizing effects
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
Target organ toxicity (single exposure):	Not classified
Target organ toxicity (repeated exposure):	Not classified
Aspiration hazard:	Not classified

12 Ecological information

12.1 Toxicity

Ecotoxical effects

Aquatic toxicity:

Sodium Azide	LC50/96h	0.7 mg/L (bluegill (Lepomis macrochirus))
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12.2 Persistence and degradability

No data available

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

Water hazard class 1
(self-assessment):

Slightly hazardous for water.

13 Disposal considerations

13.1 Waste treatment methods

Product:

Dispose of waste according to applicable legislation.

Package:

Dispose of waste according to applicable legislation.

Additional information:

Do not reuse empty containers.

14 Transport information

14.1 UN number or ID number

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA, ANTT

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.4 Risk Number

14.5 Packing group

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.6 Environmental hazards

Marine pollutant:

No

14.7 Special precautions for user

No dangerous goods in sense of these transport regulations.

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

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

Hazard statements:

H302 = Harmful if swallowed

H412 = Harmful to aquatic life with long lasting effects

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.

Abbreviations and acronyms:

ABNT: Associação Brasileira de Normas Técnicas

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

CE: Conforme Européenne

GHS: Globally Harmonized System

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods

MS: Ministério da Saúde

NBR: Norma Brasileira

PBT: Persistent, bioaccumulative and toxic

RDC: Resolução da Diretoria Colegiada

RENACIAT: Rede Nacional de Centros de Informação e Assistência Toxicológica

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

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

1.1 Product identifier

Trade Name: ASO Reagent R2

Article n°: 4060XXX

MS: 80115310079

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

In vitro diagnostics.

1.3 Manufacturer

Kovalent do Brasil Ltda.

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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

Hazardous properties cannot be excluded.

Sodium azide can form explosive azides when containing heavy metals such as copper or lead.

3 Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical characterization: Mixture

Description:

Mixture of the substances listed below with harmless products.

Hazardous components:

Identifiers	Designation Classification	Content
CAS: 26628-22-8	Sodium azide Acute Tox. Oral 4; H302 Acute Aquatic Tox 3; H412	< 0.1 %

4 First aid measures

4.1 Description of first aid measures

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General information:	Remove contaminated clothing
After inhalation:	Supply fresh air, consult doctor in case breathing problems develop. Unconscious: maintain adequate airway and respiration.
After skin contact:	Wash with soap and water. If symptoms persist, consult doctor.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. If symptoms persist, consult ophthalmologist. Do not apply neutralizing agents.
After swallowing:	Rinse out mouth and then drink plenty of water. In case of persistent symptoms, consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

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 agents: Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture.

Special hazard caused by the material, its products of combustion or flue gases: Nitrogen oxides (NO_x), Oxides of phosphorus (P_xO_y) Carbon monoxide (CO) and Carbon dioxide (CO₂)

5.3 Advice for firefighters

Protective equipment: Put on breathing apparatus. Gas-tight suit.

Additional information: Collect contaminated firefighting water separately. It must not enter drains.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Do not breathe vapors. Avoid skin and eye contact.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of materials or solid waste in an authorized location. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

7 Handling and storage

7.1 Precautions for safe handling

Observe normal to strict hygiene standards. Handle and open the container with care. Ensure good ventilation / exhaust at the workplace. Do not inhale aerosols. Avoid prolonged or repeated skin contact. Avoid contact with eyes. Make sure that all applicable workplace limits are observed.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and containers: Keep container tightly sealed and store in a well-ventilated place. Protect from heat and direct sunlight.
Store in a cool place.
Recommend storage temperature: 2 - 8 °C

8 Exposure controls/personal protection

8.1 Control parameters

Additional information about design of technical No data available.

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systems:

Components with critical values that require monitoring at the workplace:

Designation	Type	Limit value
Sodium azide	WEL (Great Britain)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³
	TLV (European Union)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ Skin

Additional information:

The list that were valid during the compilation were used as basis

8.2 Engineering control measures

Provide adequate ventilation, and local exhaust if necessary.

8.3 Exposure controls

General protective and hygienic measures: Keep away from foodstuffs, beverages and food.

Do not inhale gases / fumes / aerosols.

Avoid close or long-term contact with the skin.

Avoid contact with the eyes.

Wash hands during breaks and at the end of the work.

Protection of hands:

Protective gloves. The glove material has to be impermeable and resistant to the product / the substance / the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Check the permeability prior to each new use of the glove.

Material of gloves:

The selection of the suitable gloves does not only depend on the material but also on further marks of quality varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Protection of eyes:

Safety glasses.

Protection of skin:

Wear suitable protective clothing: lab coat.

Breathing equipment:

If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

General information

Appearance:

Physical state at 20°C and 101.3 kPa: Liquid

Colour:

Clear

Odour:

Odourless

Odour threshold:

No data available

pH value:

No data available

Melting/freezing point:

No data available

Initial boiling point and boiling range:

No data available

Evaporation rate:

No data available

Flash point/flash point range:	Not applicable
Self-inflammability:	Product is not self-igniting.
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Solubility in / Miscibility with water:	Soluble
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:	Product is not explosive
Oxidizing characteristics:	No data available

10 Stability and reactivity

10.1 Reactivity

Stable reactivity until expiry date if stored in recommended conditions.

10.2 Chemical stability

Stable until expiry date under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Thermal decomposition/conditions to be avoided:
Sunlight
Heat

10.5 Incompatible materials

Materials to be avoided:
Strong oxidizing agents
Strong acids
Heavy metals

10.6 Hazardous decomposition products

Dangerous reactions may form very sensitive explosive metallic compounds.

Dangerous products of decomposition: Nitrogen oxides (NO_x), Oxides of phosphorus (P_xO_y) Carbon monoxide (CO) and Carbon dioxide (CO₂)

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

Sodium azide	Oral	LD50	27 mg/kg (rat)
	Dermal	LD50	20 mg/kg (rabbit)

Skin corrosion/irritation:	No irritating effect
Serious eye damage/eye irritation:	No irritating effects
Respiratory or skin sensitization:	No known sensitizing effects
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
Target organ toxicity (single exposure):	Not classified
Target organ toxicity (repeated exposure):	Not classified
Aspiration hazard:	Not classified

12 Ecological information

12.1 Toxicity

Ecotoxical effects

Aquatic toxicity:

Sodium Azide	LC50/96h	0.7 mg/L (bluegill (Lepomis macrochirus))
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12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

Water hazard class 1
(self-assessment):

Slightly hazardous for water.

13 Disposal considerations

13.1 Waste treatment methods

Product:

Dispose of waste according to applicable legislation.

Package:

Dispose of waste according to applicable legislation.

Additional information:

Do not reuse empty containers.

14 Transport information

14.1 UN number or ID number

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA, ANTT

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.4 Risk Number

14.5 Packing group

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.6 Environmental hazards

Marine pollutant:

No

14.7 Special precautions for user

No dangerous goods in sense of these transport regulations.

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After swallowing:	Rinse out mouth and then drink plenty of water. In case of persistent symptoms, consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

After eye contact: May cause irritations.

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Treat symptomatically.

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Suitable extinguishing agents: Carbon dioxide (CO₂), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

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Requirements to be met by storerooms and containers: Keep container tightly sealed and store in a well-ventilated place. Protect from heat and direct sunlight.
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8.1 Control parameters

Additional information about design of technical No data available.

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systems:

Components with critical values that require monitoring at the workplace:

Designation	Type	Limit value
Sodium azide	WEL (Great Britain)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³
	TLV (European Union)	Short-term value: 0.3 mg/m ³ Long-term value: 0.1 mg/m ³ Skin

Additional information:

The list that were valid during the compilation were used as basis

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

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Protection of eyes:

Safety glasses.

Protection of skin:

Wear suitable protective clothing: lab coat.

Breathing equipment:

If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

General information

Appearance: Physical state at 20°C and 101.3 kPa: Liquid

Colour: Clear

Odour: Odourless

Odour threshold: No data available

pH value: No data available

Melting/freezing point: No data available

Initial boiling point and boiling range: No data available

Evaporation rate: No data available

Flash point/flash point range:	Not applicable
Self-inflammability:	Product is not self-igniting.
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Solubility in / Miscibility with water:	Soluble
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:	Product is not explosive
Oxidizing characteristics:	No data available

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10.1 Reactivity

Stable reactivity until expiry date if stored in recommended conditions.

10.2 Chemical stability

Stable until expiry date under recommended storage conditions.

10.3 Possibility of hazardous reactions

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Sodium Azide	LC50/96h	0.7 mg/L (bluegill (Lepomis macrochirus))
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12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

Water hazard class 1
(self-assessment):

Slightly hazardous for water.

13 Disposal considerations

13.1 Waste treatment methods

Product:

Dispose of waste according to applicable legislation.

Package:

Dispose of waste according to applicable legislation.

Additional information:

Do not reuse empty containers.

14 Transport information

14.1 UN number or ID number

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA, ANTT

Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.4 Risk Number

14.5 Packing group

ADR/RID, IMDG, IATA, ANTT

Not applicable

14.6 Environmental hazards

Marine pollutant:

No

14.7 Special precautions for user

No dangerous goods in sense of these transport regulations.

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

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

Hazard statements:

H302 = Harmful if swallowed

H412 = Harmful to aquatic life with long lasting effects

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.

Abbreviations and acronyms:

ABNT: Associação Brasileira de Normas Técnicas

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

CE: Conforme Européenne

GHS: Globally Harmonized System

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods

MS: Ministério da Saúde

NBR: Norma Brasileira

PBT: Persistent, bioaccumulative and toxic

RDC: Resolução da Diretoria Colegiada

RENACIAT: Rede Nacional de Centros de Informação e Assistência Toxicológica

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