



## 5535 Bromine Index AMDS solution

### 1. Identification of the substance/preparation and of the company or firm

#### 1.1 Identification of the substance or preparation

Name:

Bromine Index AMDS solution

#### Synonym:

**REACH Registration Number:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) N° 1907/2006, the annual tonnage does not require a registration, the registration is envisaged for a later registration deadline or it is a mixture.

#### 1.2 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

#### 1.3 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: [product.safety@panreac.com](mailto:product.safety@panreac.com)

#### 1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

### 2. Identification of dangers

Classification of the substance or the mixture.

#### Classification Regulation (CE) n° 1272/2008.

Flam. Liq. 2

Skin Corr. 1A

Acute Tox. 4

Acute Tox. 4

Acute Tox. 4

Carc. 2

## Hazard Pictograms



## Signal word

Danger

## Hazard statements

H225 Highly flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H332 Harmful if inhaled.  
H312 Harmful in contact with skin.  
H302 Harmful if swallowed.  
H351 Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

## Precautionary statements

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.

## Classification (67/548/CEE or 1999/45/CE).

<b>Xn</b> Harmful	R40
<b>C</b> Corrosive	R20/21/22
	R35
	R10

For the full text of the R-phrases mentioned in this section, see section 16.

## 3. Component Composition/Information

Name: Bromine Index AMDS solution

### Composition:

#### 0001: Sulphuric Acid 93-98%

Formula: H<sub>2</sub>SO<sub>4</sub> M.= 98,08 CAS [7664-93-9]  
EC number (EINECS): 231-639-5  
EC index number: 016-020-00-8  
REACH Registration Number: 01-2119458838-20-XXXX

**Content:** >= 0,4 % <= 0,6 %

## Classification Regulation (CE) nº 1272/2008.

Skin Corr. 1A

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H314 Causes severe skin burns and eye damage.

### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash...thoroughly after handling.

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

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 Specific treatment (see on this label).

P338 Remove contact lenses, if present and easy to do. Continue rinsing.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

### Classification (67/548/CEE or 1999/45/CE).

**C** Corrosive

**R35** Causes severe burns.

### 0001: Methanol

Formula: CH<sub>3</sub>OH M.= 32,04 CAS [67-56-1]

EC number (EINECS): 200-659-6

EC index number: 603-001-00-X

REACH Registration Number: 01-2119433307-44-XXXX

**Content:** >= 10 % <= 12 %

### Classification Regulation (CE) nº 1272/2008.

Flam. Liq. 2

Acute Tox. 3

Acute Tox. 3

Acute Tox. 3

STOT SE 1

## Hazard Pictograms



### Signal word

Danger

### Hazard statements

H225 Highly flammable liquid and vapour.  
H331 Toxic if inhaled.  
H311 Toxic in contact with skin.  
H301 Toxic if swallowed.  
H370 Causes damage to organs <or state all organs affected, if known> <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.  
P242 Use only non-sparking tools.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash...thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.  
P311 Call a POISON CENTER or doctor/physician.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P321 Specific treatment (see on this label).  
P322 Specific measures (see on this label).  
P330 Rinse mouth.  
P361 Remove/Take off immediately all contaminated clothing.  
P363 Wash contaminated clothing before reuse.  
P370+P378 In case of fire: Use for extinction.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

**Classification (67/548/CEE or 1999/45/CE).**

**F** Highly flammable  
**T** Toxic

**R11** Highly flammable.  
**R23/24/25** Toxic by inhalation, in contact with skin and if swallowed.  
**R39/23/24/25** Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

**0003: Dichloromethane \*stabilized with amylene**

Formula: CH<sub>2</sub>Cl<sub>2</sub> M.= 84,93 CAS [75-09-2]  
EC number (EINECS): 200-838-9  
EC index number: 602-004-00-3  
REACH Registration Number: 01-2119480404-41-XXXX

**Content:** >= 15 % <= 18 %

**Classification Regulation (CE) nº 1272/2008.**

Carc. 2

**Hazard Pictograms**



**Signal word**

Warning

**Hazard statements**

H351 Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

**Precautionary statements**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P281 Use personal protective equipment as required.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P405 Store locked up.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

**Classification (67/548/CEE or 1999/45/CE).**

**Xn** Harmful

**R40** Limited evidence of a carcinogenic effect.

## 0004: Acetic Acid glacial

Formula: CH<sub>3</sub>COOH    M.= 60,05    CAS [64-19-7]  
EC number (EINECS): 200-580-7  
EC index number: 607-002-00-6  
REACH Registration Number: 01-2119475328-30-XXXX

**Content:** >= 70 % <= 75 %

### Classification Regulation (CE) n° 1272/2008.

Flam. Liq. 3, Skin Corr. 1A

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.  
P242 Use only non-sparking tools.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash...thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P321 Specific treatment (see on this label).  
P338 Remove contact lenses, if present and easy to do. Continue rinsing.  
P363 Wash contaminated clothing before reuse.  
P370+P378 In case of fire: Use for extinction.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

**Classification (67/548/CEE or 1999/45/CE).**

**C** Corrosive

**R10** Flammable.

**R35** Causes severe burns.

**4. First aid**

**4.1 General indications:**

Never provide drink or induce vomiting in the event of loss of consciousness.

**4.2 Inhaling:**

Take the person out into the fresh air. Loosen clothing to release respiratory channels. In the event of suffocation, proceed to provide artificial respiration. In case of loss of consciousness, position the person lying on his/her side. Seek immediate medical assistance.

**4.3 Contact with the skin:**

Wash with plenty of soap and water. Remove contaminated clothing.

**4.4 Eyes:**

Wash with plenty of water (for at least 15 minutes), keeping eyelids open.

**4.5 Swallowing:**

Drink large amounts of water. Avoid vomiting (there is a risk of perforation). Seek immediate medical assistance. Do not neutralize.

**5. Fire-fighting means**

**5.1 Suitable fire-extinguishing means:**

Water. Carbon dioxide (CO<sub>2</sub>). Foam. Dry powder.

**5.2 Fire-fighting means which must NOT be used:**

No specific data.

**5.3 Special risks:**

Flammable. Keep away from sources of ignition. The fumes are heavier than air, so they may spread at floor level. May form explosive mixtures with the air. In the event of fire, toxic fumes may form: acetic acid. HClCOCl<sub>2</sub>.

**5.4 Protective equipment:**

Suitable clothing and footwear. Self-contained breathing equipment.

**6. Measures to be taken in the event of accidental spillage**

**6.1 Individual precautions:**

Do not inhale the fumes.

**6.2 Precautions for care of the environment:**

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

### **6.3 Methods for collection/cleaning:**

Collect up with absorbent materials (Panreac General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

## **7. Handling and storage**

### **7.1 Handling:**

Handle under an extractor fan.

### **7.2 Storage:**

Well sealed containers. In well ventilated premises. Away from sources of ignition and heat. Room temperature. Do not store in plastic containers.

## **8. Staff exposure/protection controls**

### **8.1 Technical protective measures:**

Ensure good ventilation and renewal of the air in the premises.

### **8.2 Exposure limit control:**

VLA-EC(referring to acetic acid): 15 ppm - 37 mg/m<sup>3</sup>

VLA-ED(referring to acetic acid): 10 ppm - 25 mg/m<sup>3</sup>

### **8.3 Respiratory protection:**

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter B. Filter P.

### **8.4 Hand protection:**

Use suitable gloves neopren nitrile

### **8.5 Eye protection:**

Use suitable goggles.

### **8.6 Individual hygiene measures:**

Remove contaminated clothing. Use suitable work clothing. Wash hands before breaks and when the job is done.

### **8.7 Environmental exposure controls:**

Fulfill the commitments under local environmental protection legislation.

## **9. Physical and chemical properties**

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Piquant.

pH:

N/A

Melting point/freezing point: N/A

Initial boiling point and boiling range:

N/A

Flash point:

N/A

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: N/A

Vapour density: N/A

Relative density:

N/A

Solubility:

N/A

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature:

N/A

Decomposition temperature: N/A

Viscosity: N/A

## **10. Stability and reactivity**

### **10.1 Conditions which should be avoided:**

High temperatures.

### **10.2 Matter which should be avoided:**

Anhydrides. Water. Aldehydes. Alcohols. Halogen halides. Oxidant agents (amongst others: perchloric acid, perchlorates, halogenates, CrO<sub>3</sub>, halogen oxides, nitric acid, nitrogen oxides, non-metal oxides, chromo-sulphuric acid). Metals. Alkaline hydroxides. Non-metal halides. Ethanolamine.

### **10.3 Hazardous decomposition products:**

In case of fire, fumes of acetic acid. Chlorine. Hydrogen chloride. Phosgene.

### **10.4 Complementary information:**

No specific data.

## **11. Toxicological information**

### **11.1 Acute toxicity:**

LD<sub>50</sub> oral rat : 3.310 mg/kg (refers to the component with the highest toxicity)

LD<sub>50</sub> skn rbt : 1.060 mg/kg

### **11.2 Dangerous effects for health:**

If fumes inhaled: Irritations to the respiratory tracts. Very corrosive substance. Can cause bronchopneumonia oedemas in the respiratory tract Upon contact with the skin: burns Through contact with the eyes: burns sight disorders blindness (irreversible injury of the optic nerve) Burns in the mucosae. If swallowed: Burns in the oesophagus and stomach. spasms vomiting breathing difficulties Risk of perforation in the oesophagus and stomach. Risk of aspiration upon vomiting. The following cannot be ruled out: shock cardiovascular failure acidosis kidney problems

## **12. Environmental information**

### **12.1 Toxicity:**

12.1.1 - EC50 test (mg/l):

Bacteria (Photobacterium phosphoreum) 8 mg/l

Classification:

Extr. toxic

Bacteria (Ps. putida) EC0 93 mg/l

Classification: Extr. toxic

Algae (Sc. quadricauda) EC0 30 mg/l

Classification: Extr. toxic

Fish (Leuciscus Idus) 123 mg/l

Classification:

Highly toxic

12.1.2. - Receptor medium:

Risk for the water environment

High

Risk for the land environment

High

12.1.3. - Observations:

Extremely ecotoxic in any medium, due to its non-biodegradability and bioaccumulation.

### **12.2 Persistence and Degradability :**

12.2.1 - Test:

12.2.2. - Biotic degradation classification:

BOD5/COD

Biodegradability

12.2.3. - Abiotic degradation depending on pH:

12.2.4. - Observations:

Non-biodegradable product.

### **12.3 Bioaccumulative potential:**

12.3.1. - Test:

12.3.2. - Bioaccumulation:

Risk

12.3.3. - Observations:

Bioaccumulable product.

### **12.4 Mobility in soil :**

Data not available.

### **12.5 Assessment PBT and MPMB :**

Data not available.

### **12.6 Other possible effects on the environment:**

High toxic product for water.

Maximum precaution handling it so as not to dump any.

DATA BASED on the components of the preparation.

## **13. Considerations regarding elimination**

### **13.1 Substance or preparation:**

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

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### **13.2 Contaminated containers:**

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

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## **14. Information concerning transport**

Not classified as dangerous in the meaning of transport regulations.

## **15. Regulatory information**

The substance is subject to Regulation (EC) No 273/2004 of the European Parliament and of the Council, of 11 February 2004 on drug precursors, Council Regulation (EC) No 111/2005 of 22 December 2004 laying down rules for the monitoring of trade between the Community and third countries in drug precursors, Commission Regulation (EC) No 1277/2005 of 27 July 2005 laying down implementing rules for Regulation (EC) No 273/2004 of the European Parliament and of the Council on drug precursors and for Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors.

## **16. Other information**

### **Other precautionary statements**

- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash...thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P281 Use personal protective equipment as required.
- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P321 Specific treatment (see on this label).
- P322 Specific measures (see on this label).
- P330 Rinse mouth.
- P338 Remove contact lenses, if present and easy to do. Continue rinsing.
- P363 Wash contaminated clothing before reuse.
- P370+P378 In case of fire: Use for extinction.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

### **Labelling (65/548/CEE or 1999/45/CE)**

- R-phrase(s):     **R40** Limited evidence of a carcinogenic effect.  
                      **R20/21/22** Harmful by inhalation, in contact with skin and if swallowed.  
                      **R35** Causes severe burns.  
                      **R10** Flammable.
- S-phrase(s):     **S36/37** Wear suitable protective clothing and gloves.  
                      **S24/25** Avoid contact with skin and eyes.  
                      **S23c** Do not breathe vapour.  
                      **S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
                      **S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Review number and date: 3 3.11.10

Date published: 3.11.10

In respect of the previous review, changes have been made to the following sections: 2, 3, 15

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.