

FCAT# 351288212

### SECTION 1: Identification

#### 1.1. Product identifier

|                 |                      |
|-----------------|----------------------|
| Product form    | : Substance          |
| Trade name      | : Nitric Acid ACS    |
| Chemical name   | : Nitric Acid 65-70% |
| Type of product | : Solution, Group    |
| CAS No          | : 7697-37-2          |
| Product code    | : 5200               |
| Formula         | : HNO <sub>3</sub>   |
| Product group   | : Trade product      |

#### 1.2. Recommended use and restrictions on use

Fertilizer making, dyeing, metal treatment, cleaning component, polishing, chemical intermediate, oxidizing agent.

#### 1.3. Supplier

Regent Chemical Products Ltd.  
600 Avenue Delmar  
H9R 4A8 Pointe Claire  
T 514-630-3309 - F 514-630-5951

[info@regentchem.com](mailto:info@regentchem.com) - <http://www.regentchem.com/>



#### 1.4. Emergency telephone number

Emergency number : Terrapure environmental: 1-800-567-7455(24/24)

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-CA)

|   |      |
|---|------|
| Oxidising Liquids, Category 2                 | H272 |
| Skin corrosion/irritation, Category 1A        | H314 |
| Serious eye damage/eye irritation, Category 1 | H318 |

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-CA labelling

Hazard pictograms (GHS-CA) :



GHS03

GHS05

Signal word (GHS-CA) : Danger

Hazard statements (GHS-CA) : H272 - May intensify fire; oxidiser  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage

Precautionary statements (GHS-CA) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P220 - Keep away from clothing and other combustible materials  
P260 - Do not breathe gas/mist/vapours/spray  
P264 - Wash hands, forearms and face thoroughly after handling  
P280 - Wear 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): Take off immediately all contaminated clothing. Rinse skin with water  
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

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easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor  
P321 - Specific treatment (Treat symptomatically)  
P363 - Wash contaminated clothing before reuse  
P370+P378 - In case of fire: Use media other than water to extinguish  
P405 - Store locked up  
P501 - Dispose of contents / container to a hazardous or special waste collection point in accordance with municipal, provincial and federal regulations.

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-CA)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

| Name                               | Chemical name/Synonyms                   | Product identifier | %wt/wt  | Classification (GHS-CA)                                     |
|------------------------------------|--|--------------------|---------|---|
| Nitric acid,<br>(Main constituent) | Nitric acid, azotic acid, engravers acid | (CAS No) 7697-37-2 | 65 - 70 | Ox. Liq. 2, H272<br>Skin Corr. 1A, H314<br>Eye Dam. 1, H318 |

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

|                                       |   |
|---------------------------------------|---|
| First-aid measures after inhalation   | : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.   |
| First-aid measures after skin contact | : Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.   |
| First-aid measures after eye contact  | : Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Cover eyes aseptically. Take victim to an ophthalmologist.   |
| First-aid measures after ingestion    | : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Give milk to drink. Do not induce vomiting. Do not give activated charcoal. Do not give chemical antidote. Immediately consult a doctor/medical service. Call Poison Information Centre. Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital. |

### 4.2. Most important symptoms and effects (acute and delayed)

|                                      |   |
|--------------------------------------|---|
| Symptoms/injuries after inhalation   | : Irritation of the respiratory tract. Dry/sore throat. Corrosion of the upper respiratory tract. Coughing. FOLLOWING SYMPTOMS MAY APPEAR LATER: Respiratory difficulties. Possible inflammation of the respiratory tract. Risk of lung oedema. Blue/grey discolouration of the skin. |
| Symptoms/injuries after skin contact | : Yellow skin. May stain the skin. Caustic burns/corrosion of the skin. Slow-healing wounds.  |
| Symptoms/injuries after eye contact  | : Corrosion of the eye tissue. Permanent eye damage.  |
| Symptoms/injuries after ingestion    | : Nausea. Vomiting. Abdominal pain. Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Shock.   |
| Chronic symptoms                     | : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Affection/discolouration of the teeth. Risk of pneumonia.  |

### 4.3. Immediate medical attention and special treatment, if necessary

|                                   |                         |
|-----------------------------------|-------------------------|
| Other medical advice or treatment | : Treat symptomatically |
|-----------------------------------|-------------------------|

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

|                              |  |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

### 5.2. Unsuitable extinguishing media

|                                |  |
|--------------------------------|--|
| Unsuitable extinguishing media | : No unsuitable extinguishing media known. |
|--------------------------------|--|

### 5.3. Specific hazards arising from the hazardous product

|             |                                 |
|-------------|---------------------------------|
| Fire hazard | : May intensify fire; oxidizer. |
|-------------|---------------------------------|

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### 5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

## SECTION 6: Accidental release measures

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

No additional information available

### 6.2. Methods and materials for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Dilute toxic gases/vapours with water spray. Take account of toxic/corrosive precipitation water. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapour with water curtain.

Methods for cleaning up : Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite or powdered limestone. Do not take up in combustible material such as: saw dust. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Spill must not return in its original container. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the workstation. Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe gas / mist / vapors / spray.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when handling this product. Wash hands after handling.

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

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Storage area : Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Keep locked up. Provide for a tub to collect spills. Aboveground. Keep only in the original container. Store only in a limited quantity. Meet the legal requirements.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. reducing agents. (strong) bases. cellulosic materials. organic materials. metal powders. water/moisture.

Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. dry. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: stainless steel. aluminium. glass. MATERIAL TO AVOID: synthetic material.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Nitric Acid ACS (7697-37-2) |                                     |                               |
|-----------------------------|-------------------------------------|-------------------------------|
| USA - ACGIH                 | ACGIH TWA (ppm)                     | 2 ppm                         |
| USA - ACGIH                 | ACGIH STEL (ppm)                    | 4 ppm                         |
| USA - ACGIH                 | Remark (ACGIH)                      | URT & eye irr; dental erosion |
| USA - OSHA                  | OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 5 mg/m <sup>3</sup>           |
| USA - OSHA                  | OSHA PEL (TWA) (ppm)                | 2 ppm                         |

### 8.2. Appropriate engineering controls

No additional information available

### 8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing : GIVE LESS RESISTANCE: polyethylene/ethylenevinylalcohol. GIVE POOR RESISTANCE: chloroprene rubber. nitrile rubber. polyethylene. PVA. natural fibres.

Hand protection : Gloves.

Eye protection : Safety glasses.

Skin and body protection : Head/neck protection. Corrosion-proof clothing.

Respiratory protection : Gas mask with filter type B. Gas mask with filter type E. Gas mask with filter type NO. High vapour/gas concentration: self-contained respirator.

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|   |  |
|---|--|
| Physical state                                  | : Liquid   |
| Appearance                                      | : Liquid.  |
| Molecular mass                                  | : 63.01 g/mol  |
| Colour  | : Colourless-yellow. On exposure to light: red-brown.                          |
| Odour   | : Irritating/pungent odour. Asphyxiating odour.                                |
| Odour threshold                                 | : 0.29 - 0.98 ppm<br>0.75 - 2.5 mg/m <sup>3</sup>                              |
| pH  | : 1 (6 % solution)   |
| pH solution                                     | : 6 %  |
| Relative evaporation rate (butylacetate=1)      | : No data available  |
| Relative evaporation rate (ether=1)             | : No data available  |
| Melting point                                   | : -42 - -38 °C   |
| Freezing point                                  | : No data available  |
| Boiling point                                   | : 83 - 122 °C  |
| Flash point                                     | : Not applicable   |
| Auto-ignition temperature                       | : Not applicable   |
| Decomposition temperature                       | : No data available  |
| Flammability (solid, gas)                       | : No data available  |
| Vapour pressure                                 | : 7.3 - 58.5 hPa (20 °C)   |
| Vapour pressure at 50 °C                        | : No data available  |
| Relative vapour density at 20 °C                | : 2.2  |
| Relative density                                | : 1.4 - 1.5  |
| Relative density of saturated gas/air mixture   | : 1.01   |
| Density   | : 1.413 – 1.513 kg/m <sup>3</sup>  |
| Relative gas density                            | : No data available  |
| Solubility                                      | : Exothermically soluble in water. Soluble in ether.<br>Water: Complete        |
| Log Pow   | : -2.3 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method) |
| Log Kow   | : No data available  |
| Viscosity, kinematic                            | : No data available  |
| Viscosity, dynamic                              | : 0.0009 - 0.002 Pa.s (20 °C)  |
| Viscosity, kinematic (calculated value) (40 °C) | : No data available  |
| Explosive properties                            | : No data available  |
| Oxidising properties                            | : May intensify fire; oxidiser.  |
| Explosive limits                                | : No data available  |
| Lower explosive limit (LEL)                     | : No data available  |
| Upper explosive limit (UEL)                     | : No data available  |

#### 9.2. Other information

|                          |  |
|--------------------------|--|
| Saturation concentration | : 10 g/m <sup>3</sup>  |
| VOC content              | : 0 %  |
| Other properties         | : Gas/vapour heavier than air at 20°C. Hygroscopic. Producing fumes/mist. Physical properties depending on the concentration. Substance has acid reaction. |

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | : May intensify fire; oxidiser. Reacts with most metals to produce hydrogen gas which could make an explosive mixture with air.   |
| Chemical stability                 | : Stable, under normal conditions. Becomes yellow when exposed to light.  |
| Possibility of hazardous reactions | : No dangerous reactions known under normal conditions of use.  |
| Conditions to avoid                | : Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.   |
| Incompatible materials             | : Incompatible with most common metals, water, amines, metal oxides, acetic anhydride, strong bases, organic material and alkalizes. Avoid direct sunlight.                                     |
| Hazardous decomposition products   | : Nitrogen oxides (NO, NO <sub>2</sub> , N <sub>2</sub> O, N <sub>2</sub> O <sub>3</sub> ), nitric acid fumes or vapours, toxic and corrosive fumes, hydrogen gas (flammable and/or explosive). |

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

|                             |                  |
|-----------------------------|------------------|
| Acute toxicity (oral)       | : Not classified |
| Acute toxicity (dermal)     | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

|  |  |
|--|--|
| Skin corrosion/irritation                          | : Causes severe skin burns and eye damage.<br>pH: 1 (6 % solution) |
| Serious eye damage/irritation                      | : Causes serious eye damage.<br>pH: 1 (6 % solution)               |
| Respiratory or skin sensitization                  | : Not classified   |
| Germ cell mutagenicity                             | : Not classified   |
| Carcinogenicity                                    | : Not classified   |
| Reproductive toxicity                              | : Not classified   |
| Specific target organ toxicity (single exposure)   | : Not classified   |
| Specific target organ toxicity (repeated exposure) | : Not classified   |
| Aspiration hazard                                  | : Not classified   |

### SECTION 12: Ecological information

#### 12.1. Toxicity

|                   |  |
|-------------------|--|
| Ecology - general | : Classification concerning the environment: not applicable.   |
| Ecology - air     | : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).  |
| Ecology - water   | : Maximum concentration in drinking water: 50 mg/l (nitrate) (Directive 98/83/EC). Harmful to fishes. Slightly harmful to invertebrates (Daphnia). May cause eutrophication. pH shift. |

| Nitric Acid ACS (7697-37-2) |                       |
|-----------------------------|-----------------------|
| LC50 fish 2                 | 72 ppm (LC50; 96 h)   |
| EC50 Daphnia 1              | 180 mg/l (EC50; 48 h) |

#### 12.2. Persistence and degradability

| Nitric Acid ACS (7697-37-2)     |  |
|---------------------------------|--|
| Persistence and degradability   | Biodegradability: not applicable. No (test)data on mobility of the components available. |
| Biochemical oxygen demand (BOD) | Not applicable   |
| Chemical oxygen demand (COD)    | Not applicable   |
| ThOD                            | Not applicable   |

#### 12.3. Bioaccumulative potential

| Nitric Acid ACS (7697-37-2) |  |
|-----------------------------|--|
| BCF fish 1                  | <= 1 (BCF)   |
| Log Pow                     | -2.3 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method) |
| Bioaccumulative potential   | Bioaccumulation: not applicable.   |

#### 12.4. Mobility in soil

| Nitric Acid ACS (7697-37-2) |  |
|-----------------------------|--|
| Log Pow                     | -2.3 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method) |

#### 12.5. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

- Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle/reuse. Remove for physico-chemical/biological treatment. Remove to an authorized dump (Class I). Treat using the best available techniques before discharge into drains or the aquatic environment.
- Additional information : Dispose of contents / container to a hazardous or special waste collection point in accordance with municipal, provincial and federal regulations.

### SECTION 14: Transport information

#### 14.1. Basic shipping description

In accordance with TDG

#### Transportation of Dangerous Goods

- UN-No. (TDG) : UN2031
- Packing group : II - Medium Danger
- TDG Primary Hazard Classes : 8 - Class 8 - Corrosives
- TDG Subsidiary Classes : 5.1
- Transport document description : UN2031 NITRIC ACID (other than red fuming, with at least 65%, but not more than 70% nitric acid), 8 (5.1), II
- Proper Shipping Name (TDG) : NITRIC ACID  
other than red fuming, with at least 65%, but not more than 70% nitric acid
- Hazard labels (TDG) : 8 - Corrosive substances  
5.1 - Oxidizing substances



- ERAP Index : 3 000
- Explosive Limit and Limited Quantity Index : 1 L
- Passenger Carrying Ship Index : Forbidden
- Excepted quantities (TDG) : E1
- Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : Forbidden

#### 14.2. Transport information/DOT

#### DOT

- UN-No.(DOT) : 2031
- Packing group (DOT) : II - Medium Danger
- Proper Shipping Name (DOT) : NITRIC ACID, other than red fuming, with at least 65%, but not more than 70% nitric acid
- Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
- Subsidiary Classes(DOT) : 5.1 - Oxidizing substances
- Dangerous for the environment : No
- Other information : No supplementary information available.

#### 14.3. Air and sea transport

#### IMDG

- UN-No. (IMDG) : 2031
- Proper Shipping Name (IMDG) : NITRIC ACID, other than red fuming, with at least 65%, but not more than 70% nitric acid
- Class (IMDG) : 8 - Class 8 - Corrosive material
- Subsidiary Classes(IMDG) : 5.1 - Oxidizing substances
- Dangerous for the environment : No
- Packing group (IMDG) : II - Medium Danger



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### IATA

|                             |  |
|-----------------------------|--|
| UN-No. (IATA)               | : 2031   |
| Proper Shipping Name (IATA) | : NITRIC ACID, other than red fuming, with at least 65%, but not more than 70% nitric acid |
| Class (IATA)                | : 8 - Class 8 - Corrosive material   |
| Subsidiary Classes(IATA)    | : 5.1 - Oxidizing substances   |
| Packing group (IATA)        | : II - Medium Danger   |

### SECTION 15: Regulatory information

#### 15.1. National regulations

No additional information available

#### 15.2. International regulations

##### Nitric Acid ACS (7697-37-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### SECTION 16: Other information

|               |              |
|---------------|--------------|
| Date of issue | : 24/11/2016 |
| Revision date | : 28/09/2018 |

Full text of H-statements:

|      |   |
|------|---|
| H272 | May intensify fire; oxidiser            |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage               |

REGENT-GHS-SDS

*IMPORTANT: The information presented herein is believed to be accurate and is offered only as a guide. Users should make their own tests to determine the suitability of these products for their own particular purposes. Users assume all risk of use, storage and handling of the product. No warranty, express or implied, is made including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Nothing contained herein shall be construed as a license to operate under, or recommendation to infringe any patents*