

# Material Safety Data Sheet

according 1907/2006/EC

## ANNEXES: RELEVANT EXPOSURE SCENARIOS

### 1. Exposure scenario (2) for HAIFA-CAL GG

<b>Title of exposure scenario:</b>	Industrial use of Nitric acid, ammonium calcium salt for formulation of preparations, intermediate use and end-use in industrial settings
<b>Use descriptors related to the life cycle stage:</b>	SU : 3/10 PC : 0(H15000)/9a/11/12/16/19/20/29/37/39 PROC : 1/2/3/4/5/8a/8b/9/13/15/23/26 ERC : 2/3/4/5/6b/7
<b>Name of contributing environmental scenario (1) and corresponding ERC</b>	ERC 2 : Formulation of preparations ERC 3 : Formulation in materials ERC 4 : Industrial use of processing aids in processes and products, not becoming part of articles ERC 5 : Industrial use resulting in inclusion into or onto a matrix ERC 6b : Industrial use of reactive processing aids ERC 7 : Industrial use of substances in closed systems
<b>List of names of contributing worker scenarios (2) and corresponding PROC</b>	PROC1 : Use in closed process, no likelihood of exposure PROC2 : Manufacturing in a closed continuous process, with occasional exposure. PROC3 : Use in closed batch process (synthesis or formulation) PROC4 : Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 : Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC8a : Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b : Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9 : Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC13 : Treatment of articles by dipping and pouring PROC15 : Use as laboratory reagent PROC23 : Open processing and transfer operations with minerals/metals at elevated temperature PROC26 : Handling of solid inorganic substances at ambient temperature

### 2.1. Contributing scenario (1) controlling environmental exposure

<b>Environmental release category</b>	Formulation of preparations (ERC2), formulation in materials (ERC4) and industrial use of processing aids in processes and products, not becoming part of articles (ERC4). Industrial use resulting in inclusion into or onto a matrix (ERC5). Industrial use of reactive processing aids (ERC6b) and of substances in closed systems (ERC7). An environmental assessment has not been performed as the substance does not meet the criteria for being classified as dangerous for the environment.
---------------------------------------	--

# Material Safety Data Sheet

according 1907/2006/EC

## 2.2. Contributing scenario (2) controlling worker exposure for industrial use for formulation of preparations, intermediate use and end-use in industrial settings

<b>Process categories</b>	All Process Categories (PROC1/2/3/4/5/8a/8b/9/13/15/23/26) are covered by this contributing scenario as all Operational Conditions (OCs) and Risk Management Measures (RMMs) are identical.
<b>Product characteristics</b>	Solid (low dustiness) or liquid >25% substance in the product
<b>Amounts used</b>	Not applicable
<b>Frequency and duration of use/exposure</b>	> 4 hours / day
<b>Human factors not influenced by risk management</b>	Not applicable
<b>Other given operational conditions affecting workers exposure</b>	Indoors
<b>Technical conditions and measures at process level (source) to prevent release</b>	Observe the usage/storage instructions
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	<ol style="list-style-type: none"><li>1. Containment as appropriate</li><li>2. Good standard of general ventilation</li></ol>
<b>Organisational measures to prevent /limit releases, dispersion and exposure</b>	Only allow access to authorized staff. Use appropriate containment to avoid environmental contamination. If necessary: use complete process isolation technology. Automate activity where possible. Ensure operators are trained to minimize exposure. No action should be taken involving any personal risk or without suitable training. Ensure control measures are regularly inspected and maintained.
<b>Conditions and measures related to personal protection, hygiene and health evaluation</b>	Avoid contact with skin and eyes. Avoid breathing dust or mist. To reduce exposure of the eye to a negligible level use chemical goggles. Minimize number of stuff exposed. Effective contaminant extraction. Avoidance of contact with contaminated tools and objects. Regular cleaning of equipment and work area. Training for staff on knowledge on chemical behavior of the substance & good practice Good standard of personal hygiene.  See section 8 of the safety data sheet (personal protective equipment)
<b>Conditions and measures related to hazards from physic-chemical properties</b>	General good practice for handling and storage of hazardous chemical substances. Do not eat, drink or smoke when using this product. Store and use away from heat, open flame or any other heat sources. Avoid contact with combustible materials and reducing agents. Keep away from acids or bases Prevent moisture pick-up in handling and storage.

# Material Safety Data Sheet

according 1907/2006/EC

---

## 3. Exposure information and reference to its source

### Information for contributing scenario 1

An environmental assessment has not been performed as the substance does not meet the criteria for being classified as dangerous for the environment.

### Information for contributing scenario 2

A qualitative approach was used to conclude safe use for workers.

## 4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

### Environment

No additional risk management measures needed

### Health

The substance will be classified as acute harmful via the oral route (R22 under 67/548/EEC or H302 under CLP) and corrosive to eyes (R41 under 67/548/EEC or H318 under CLP) once registered under REACH.

Guidance on safe use will be communicated to downstream users by means of product labels, MSDS and by statutory controls on use and environmental release.

# Material Safety Data Sheet

according 1907/2006/EC

## 1. Exposure scenario (3) for HATFA-CAL GG

<b>Title of exposure scenario:</b>	Professional use of Nitric acid, ammonium calcium salt for formulation of preparations and professional end-use
<b>Use descriptors related to the life cycle stage:</b>	SU : 22 PC : 9a/12/16/20/37 PROC : 1/2/3/5/8a/10/11/19/26 ERC : 8a/8b/8e/8f/9b
<b>Name of contributing environmental scenario (1) and corresponding ERC</b>	ERC 8a : Wide dispersive indoor use of processing aids in open systems ERC 8b : Wide dispersive indoor use of reactive substances in open systems ERC 8e : Wide dispersive outdoor use of reactive substances in open systems ERC 8f : Wide dispersive outdoor use resulting in inclusion into or onto a matrix ERC 9b : Wide dispersive outdoor use of substances in closed systems
<b>List of names of contributing worker scenarios (2) and corresponding PROC</b>	PROC1 : Use in closed process, no likelihood of exposure PROC2 : Manufacturing in a closed continuous process, with occasional exposure. PROC3 : Use in closed batch process (synthesis or formulation) PROC5 : Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC8a : Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC10 : Roller application or brushing PROC11 : Non industrial spraying PROC19 : Hand-mixing with intimate contact and only PPE available PROC26 : Handling of solid inorganic substances at ambient temperature

### 2.1. Contributing scenario (1) controlling environmental exposure

<b>Environmental release category</b>	Wide dispersive indoor use of processing aids in open systems (ERC8a) or of reactive substances in open systems (ERC8b) Wide dispersive outdoor use of reactive substances in open systems (ERC8e) or wide dispersive outdoor use resulting in inclusion into or onto a Matrix or wide dispersive outdoor use of substance in closed systems.  An environmental assessment has not been performed as the substance does not meet the criteria for being classified as dangerous for the environment.
---------------------------------------	---

# Material Safety Data Sheet

according 1907/2006/EC

## 2.2. Contributing scenario (2) controlling worker exposure for professional use in formulation of preparations and end-use

<b>Process categories</b>	All Process Categories (PROC1/2/3/5/8a/10/11/19/26) are covered by this contributing scenario as all Operational Conditions (OCs) and Risk Management Measures (RMMs) are identical.
<b>Product characteristics</b>	Solid (low dustiness) or liquid >25% substance in the product
<b>Amounts used</b>	Not applicable
<b>Frequency and duration of use/exposure</b>	> 4 hours/ day
<b>Human factors not influenced by risk management</b>	Not applicable
<b>Other given operational conditions affecting workers exposure</b>	Indoors or outdoors
<b>Technical conditions and measures at process level (source) to prevent release</b>	Observe the usage/storage instructions
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	<ol style="list-style-type: none"><li>1. Containment as appropriate</li><li>2. Good standard of general ventilation</li></ol>
<b>Organisational measures to prevent /limit releases, dispersion and exposure</b>	Only allow access to authorized staff. Use appropriate containment to avoid environmental contamination. If necessary: use complete process isolation technology. Automate activity where possible. Ensure operators are trained to minimize exposure. No action should be taken involving any personal risk or without suitable training. Ensure control measures are regularly inspected and maintained.
<b>Conditions and measures related to personal protection, hygiene and health evaluation</b>	Avoid contact with skin and eyes. Avoid breathing dust or mist. To reduce exposure of the eye to a negligible level use chemical goggles. Minimize number of stuff exposed. Segregation of the emitting process Effective contaminant extraction Minimisation of manual phases Avoidance of contact with contaminated tools and objects Regular cleaning of equipment and work area Training for staff on knowledge on chemical behavior of the substance & good practice Good standard of personal hygiene. Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed See section 8 of the safety data sheet (personal protective equipment)
<b>Conditions and measures related to hazards from physico-chemical properties</b>	General good practice for handling and storage of hazardous chemical substances. Do not eat, drink or smoke when using this product. Store and use away from heat, open flame or any other heat sources. Avoid contact with combustible materials and reducing agents. Keep away from acids or bases. Prevent moisture pick-up in handling and storage.

# Material Safety Data Sheet

according 1907/2006/EC

---

## 3. Exposure information and reference to its source

### Information for contributing scenario 1

An environmental assessment has not been performed as the substance does not meet the criteria for being classified as dangerous for the environment.

### Information for contributing scenario 2

A qualitative approach was used to conclude safe use for workers.

## 4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

### Environment

No additional risk management measures needed

### Health

The substance will be classified as acute harmful via the oral route (R22 under 67/548/EEC or H302 under CLP) and corrosive to eyes (R41 under 67/548/EEC or H318 under CLP) once registered under REACH.

Guidance on safe use will be communicated to downstream users by means of product labels, MSDS and by statutory controls on use and environmental release.

# Material Safety Data Sheet

according 1907/2006/EC

## 1. Exposure scenario (4) for HATFA-CAL GG

<b>Title of exposure scenario:</b>	Consumer end-use of fertilizers and other products
<b>Use descriptors related to the life cycle stage:</b>	SU : 21 PC : 12/16/39 ERC : 8a/8b/8e
<b>Name of contributing environmental scenario (1) and corresponding ERC</b>	ERC 8a : Wide dispersive indoor use of processing aids in open systems ERC 8b : Wide dispersive indoor use of reactive substances in open systems ERC 8e : Wide dispersive outdoor use of reactive substances in open systems
<b>List of names of contributing consumer scenarios (2) and corresponding PC and sub-product categories if applicable</b>	PC4 : Anti-Freeze and de-icing products PC12 : Fertilizers PC35 : Washing and cleaning products (including solvent based products) PC39 : Cosmetics, personal care products

### 2.1. Contributing scenario (1) controlling environmental exposure

<b>Environmental release category</b>	Wide dispersive indoor use of processing aids in open systems (ERC8a) and of reactive substances in open systems. Wide dispersive outdoor use of reactive substances in open systems (ERC8e)  An environmental assessment has not been performed as the substance does not meet the criteria for being classified as dangerous for the environment.
---------------------------------------	--

### 2.2. Contributing scenario (2) Consumer end-use of fertilizers and other products

<b>Product categories</b>	All Operational Conditions (OCs) and Risk Management Measures (RMMs) are identical and are covered by this contributing scenario.
<b>Product characteristics</b>	Solid (low dustiness) or liquid Products containing $\geq 10\%$ (and $< 25\%$ ) or $< 10\%$ .
<b>Amounts used</b>	Not applicable
<b>Frequency and duration of use/exposure</b>	Not applicable
<b>Human factors not influenced by risk management</b>	Not applicable
<b>Other given operational conditions affecting workers exposure</b>	Outdoors
<b>Conditions and measures related to information and behavioral advice to consumers</b>	Observe the usage/storage instructions
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	1. Containment as appropriate 2. Good standard of general ventilation

# Material Safety Data Sheet

according 1907/2006/EC

## 2.2. Contributing scenario (2) Consumer end-use of fertilizers and other products (continue)

### Organisational measures to prevent /limit releases, dispersion and exposure

Only allow access to authorized staff.  
Use appropriate containment to avoid environmental contamination.  
If necessary: use complete process isolation technology. Automate activity where possible.  
Ensure operators are trained to minimize exposure. No action should be taken involving any personal risk or without suitable training.  
Ensure control measures are regularly inspected and maintained.

### Conditions and measures related to personal protection, hygiene and health evaluation

Good standard of personal hygiene.  
To reduce exposure of the eye to a negligible level use chemical goggles.  
Product labeling.

See section 8 of the safety data sheet (personal protective equipment)

### Conditions and measures related to hazards from physic-chemical properties

General good practice for handling and storage of hazardous chemical substances.  
Do not eat, drink or smoke when using this product.  
Store and use away from heat, open flame or any other heat sources.  
Avoid contact with combustible materials and reducing agents.  
Keep away from acids or bases.  
Prevent moisture pick-up in handling and storage.

## 3. Exposure information and reference to its source

### Information for contributing scenario 1

An environmental assessment has not been performed as the substance does not meet the criteria for being classified as dangerous for the environment.

### Information for contributing scenario 2

A qualitative approach was used to conclude safe use for workers.

## 4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

### Environment

No additional risk management measures needed

### Health

The substance will be classified as acute harmful via the oral route (R22 under 67/548/EEC or H302 under CLP) and corrosive to eyes (R41 under 67/548/EEC or H318 under CLP) once registered under REACH.  
Guidance on safe use will be communicated to downstream users by means of product labels, MSDS and by statutory controls on use and environmental release.

End of document