COMBI OVENS

EQUATOR

MANUFACTURERS SPECIFICATION

Part C: Instructions for use

- WARRANTY -

In order to guarantee this equipment, we recommend that you comply with the MANUFACTURER'S INSTRUCTIONS in this manual.
However if you can not undertake the required maintenance operations, our installation and service network is available to provide you with a personalized contract.

- WARNING -

- The product delivered to you complies with current standards. If any modifications are made the manufacturer cannot accept any responsibility whatsoever. The manufacturer can not be held responsible in the event of an incorrect use of the appliance.
- These appliances are for professional use only and must be used by specialised personnel.
- Read the manual carefully before installation.
- Keep your manuals.

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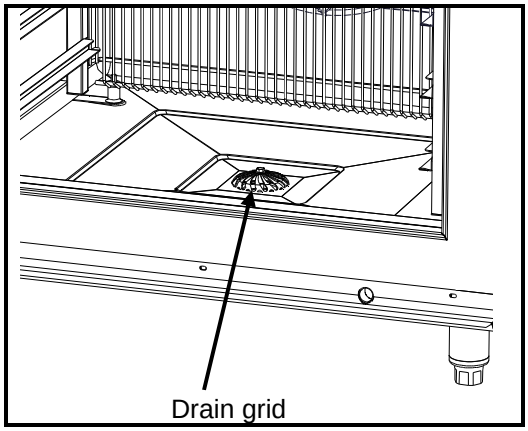
COMBI OVENS
EQUATOR

1 RECOMMENDATIONS

- These appliances are for professional use, only qualified personnel should use them.
- Cooking appliances may reach 250℃. BE CAREFUL not to burn yourself when using or handling INNER ACCESSORIES (Plates, modules, filter, duct...).
- These appliances must be installed with sufficient ventilation to prevent the formation of an excessive concentration of substances harmful for health within the premises in which they are installed.
- The rate of new air required for gas oven combustion is 2 m3/h per kW of heat rate.
- The equipment is not designed to work in an explosive atmosphere. Due to this, it must not be installed in a zone pertaining to the ATEX provision.
- The door surface temperature exceeds 60℃. BE CARE FUL NOT TO BURN YOURSELF.
- Putting tins and trays into / out of ovens: The height of the upper level of appliances located on a worktop or stand may be 1.75 m. If you handle manually, manipulate the baking tins carefully. BE CAREFUL OF SPILLAGE WHEN HANDLING, YOU MAY BURN YOURSELF.
- Never block the condensate exhaust flue, because the pressure could rise in the appliance which could generate a risk of explosion.
- If the message E69 or E68 appears, switch off the supply to the oven and call a technician from the after sales service.
- For cleaning, the use of high pressure water jets or sprays is strictly prohibited.
- NEVER START THE OVEN WITHOUT HAVING SET AND LOCKED THE VENTILATION DUCT.
- Do not remove the drain grid located in the oven. If this grid is missing do not start the oven.



- Immediately after lighting gas ovens, electronic equipment should not be used nearby.
- Always use a qualified installer to install the equipment and if necessary change the oven from one gas to another.

- IMPORTANT: Please be aware that when cooking dishes prepared with alcohol (coq au vin, pears in wine, etc.…). Vapour saturated with alcohol may when heated cause an explosion in the oven and due to the sealed door, create a momentary overpressure which may cause an irreversible deformation of the panels. This risk is further increased when the user adds alcohol to the products near the end of the cooking cycle and closes the door to complete cooking.

- To ensure long lasting, safe and proper functioning, carry out a full **check and maintenance of the appliance twice a year** using qualified personnel from our company (Dismantling of burners, inspection and cleaning of venturis, cleaning of nozzles, adjustment of air rings, cleaning of vents, checking possible leaks, checking control elements, regulating and safety accessories…).

- **The oven must be meticulously and DAILY maintained (see the "Maintenance" chapter). In particular, the fans, heating elements and walls must be kept clean, without accumulation of grease and mineral deposits (lime or other).**

- **Preheating (20 level ovens): Whatever the mode, these ovens are designed to be preheated with the trolley in place.**

- THE APPLICATION OF ANY CLEANING PRODUCT ONTO A HOT SURFACE, OVER 60℃, IS STRICTLY FORBIDDEN. The surface will be damaged beyond repair (darkened, virtually black).

- Combination ovens should be cleaned with specific products. There is a reason for this: The risk caused by products that are in anyway corrosive.

- We strongly recommend the use of cleaning products supplied by the manufacturer to ensure good results and optimise the service life of its components

- For maximum efficiency of the descaling product without damaging the material and components of the oven, you should use the appropriate descaler. The use of certain acid has a destructive role that can irreversibly and significantly damage your device. The descaling product must contain corrosion inhibitors to prevent from metal attack. The descaling product must also comply with the regulations in law, in particular on material intended to come into contact with foodstuffs.
  Chemical products containing nitric acid are strictly prohibited.
  Recommended composition:
  - Phosphoric acid <50%
  - Corrosion inhibitor

- The automatic cleaning system (option) is exclusively designed to achieve an introduction of cleaning and degreasing chemical. Never use a descaling agent. This would damage the hydraulic system of the oven irreversibly.

- Danger of irritation to the skin and eyes or acid burns.
  Detergents will cause irritation and possible burns if in direct contact with the skin or eyes.
  - Do not inhale the mist or spray
  - Avoid direct contact with these products
  - Never open the oven door during the automatic cleaning cycle
  - Wear protective clothing, gloves and hermetic protective goggles in accordance with the safety data sheet.

- Remember the dangers identified on the safety data sheet for each detergent
  - Harmful if swallowed.
  - Can result in serious burns.
  - Irritates the eyes.
  - Irritates the respiratory tracts.
  - Risk of serious eye lesions.

- Remember the safety advice provided by the safety data sheet for each detergent
  - Do not each or drink when using these products.
  - Do not inhale their vapours.
  - If case of contact with eyes rinse immediately with plenty of water and seek medical advice.
  - Wear appropriate protective clothing, gloves and face and eye protective gear.
  - In the event of an accident or sickness seek immediate medical attention
  - Dispose of the product and its container as hazardous waste.

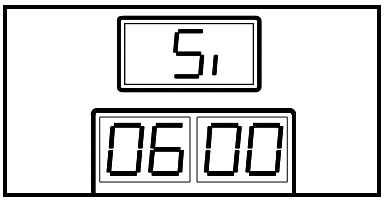
- The manufacturer certifies that the packaging conforms to the provision 94/62/CE of 20.12.94 relating to packaging and packaging materials and requires the fitter (and the user) to observe the rules relating to packaging removal (recycling or upgrading of packaging materials).

- « According to article 6 of the decree of 20 July 2005 a marking giving the identity of the manufacturer and the release on the market of the equipment after the 13 August 2005 is indicated on the appliance. »
  « The Manufacturer has filled in the National Register. »
  As per the legal provisions in force (article 21 & 22 of the decree 2005-829), the customer is responsible for the obligations relating to the elimination of waste, namely:
  - he is to deal with selective treatment, reconditioning and destruction of residues arising from electric and electronic equipment selectively collected in the installations meeting the technical requirements or in any other installation authorised for the purpose, in any other member State of the European Union or in another State in so far as the transfer of these residues out of France is made according to the provisions of the Regulation of 1st February 1993 indicated above.
  - he must make sure that all fluids of electric and electronic equipment are drained according to the requirements of the provisions.
  - he must make sure that the information relating to the removal and treatment of these residues is forwarded to any further acquirer.

- **The warranty will not cover problems caused by failure to comply with these recommendations.**

2 STARTING

When starting the oven, the digital displays on the control panel indicate the configuration of the oven and the time remaining till the next service.



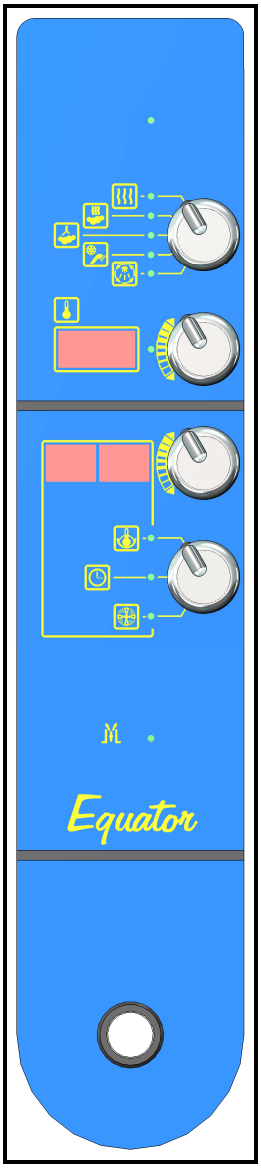
Oven configuration
Si = **S**imple **i**njection

Time remaining till next service
06 00 = 600 hours

2.1 CONTROL PANEL

2.1.1 PRESENTATION OF THE CONTROL PANEL (BEFORE 1ER JANUARY 2012)

The indicators next to the switches show the position selected.



Voltage indicator « **On** »

Switch 1: Cooking mode (convection, steam, combi…)

Switch 2: Adjustment of the cooking temperature
Temperature display of cavity or set temperature
Regulating indicator

Switch 3: Adjustment of the set parameter value chosen by switch 4.
Multifunction **display:** core temperature, cooking time …

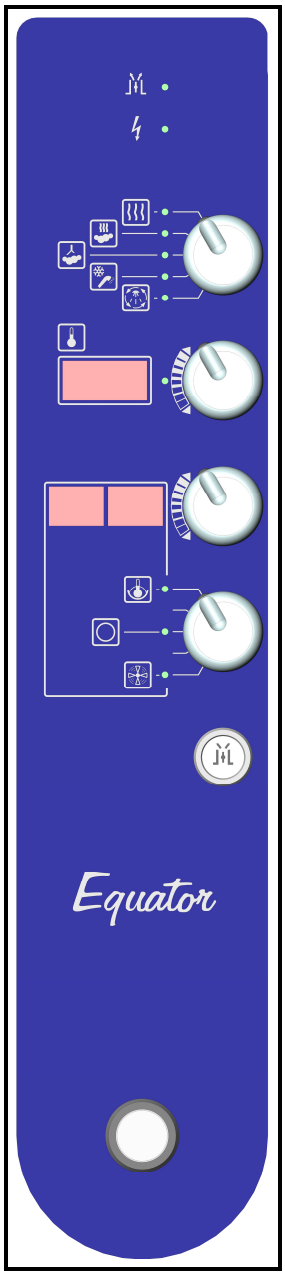
Switch 4: choice of parameter that can be modified by switch 4: mode of cooking end (core temperature, timing), cooking parameter (ventilation speed)

Opening **indicator** of the motorised vent valve

Button 5: Switches the oven on

2.1.2 PRESENTATION OF THE CONTROL PANEL (FROM 1ER JANUARY 2012)

The indicators next to the switches show the position selected.



Opening **indicator** of the motorised vent valve
Voltage indicator « **On** »

Switch 1: Cooking mode (convection, steam, combi…)

Switch 2: Adjustment of the cooking temperature
Temperature display of cavity or set temperature
Regulating indicator

Switch 3: Adjustment of the set parameter value chosen by switch 4.
Multifunction **display:** core temperature, cooking time …

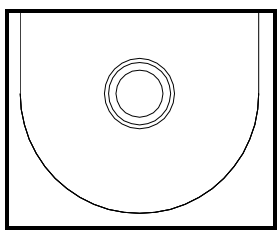
Switch 4: choice of parameter that can be modified by switch 4: mode of cooking end (core temperature, timing), cooking parameter (ventilation speed)

Switch 4: Opening of the motorised vent valve

Button 5: Switches the oven on

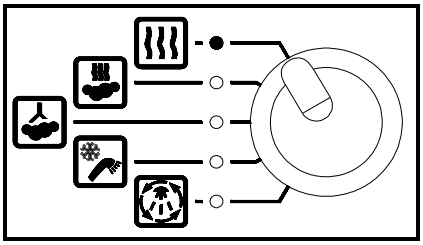
2.1.3 DETAIL OF THE CONTROL PANEL

Button 5: Switching the oven on

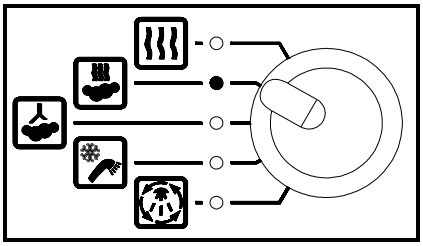


Operation button
Lighting and control panel are on. The display indicates the set temperature previously programmed.
Note: The light at the top of the control panel indicates that the oven is connected electrically but is not on. Pressing the start button illuminates the time or temperature display, this light then goes out.

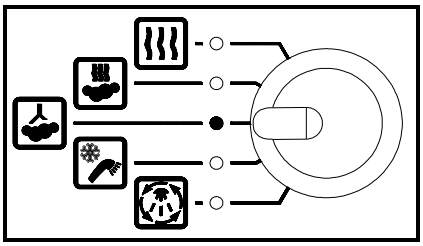
Switch 1: Cooking mode



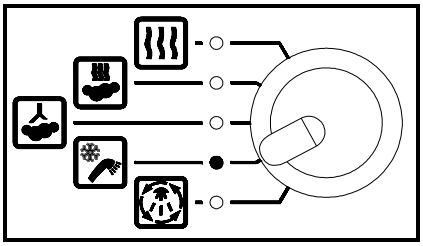
Forced air convection cooking position (0 to 250°C)
Only the oven heat exchange is on.
Use this position for pastry which must be dried out (choux pastry).
Ventilation is alternated to perfect cooking.



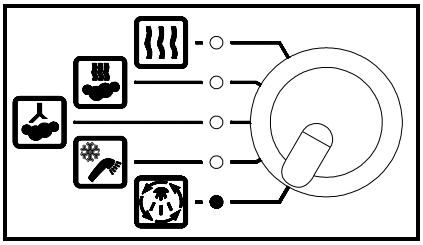
Combi cooking position (30 to 250°C)
Steam + convection.
Use for cooking roasts, pastries which must remain moist, shellfish, fish, …)
Ventilation is alternated to perfect cooking.
The level of humidity is 10% by default



Steam cooking position (30 to 105°C)
Use for defrosting, cooking vegetables and fish, low temperature cooking and sous vide … .
Ventilation is not alternated.

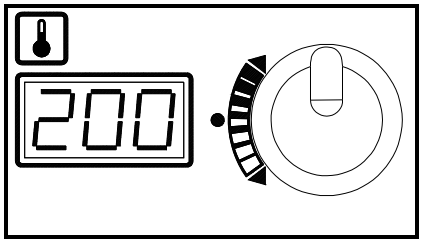


Cavity cooling / rinsing position
Provides rapid oven cavity cooling and a rinse.
Start and stop by pressing the button.
Note: Cooling is achieved by injecting water into the cooking cavity.



Cleaning cycle position
To be used daily once cooking has finished.
The semi automatic or automatic cycle (depending the model) provides optimum cleaning in complete safety. (See chapter: Oven maintenance)

Switch 2: Temperature adjustment

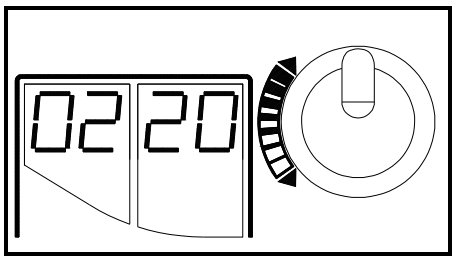


Adjustment switch for set temperature
Adjusts temperature.
The corresponding indicator is lit when the oven requires heating.

Without actuating this switch, the indicator shows the set temperature (Temperature required for cooking).

A first touch of the switch displays the actual temperature of the oven for 5 seconds.
A clockwise rotation increases the set value. An anti-clockwise rotation reduces it.
Value variation is made degree by degree up to 105°C and every 5 degrees above this value.
Actuating a switch on the control panel validates the modified set value.
Without touching any switch on the control panel, the set value is automatically validated after 5 seconds.

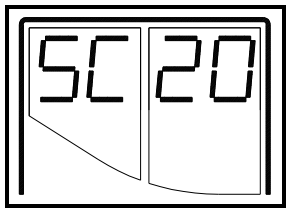
Switch 3: Adjustment of the set time, core temperature and speed



Adjustment switch for set values
It allows the adjustment of set values selected by switch 4
The display shows time, core temperature, ventilation speed.

Note: These set values can be adjusted during cooking or not.

Switch 4 in **core probe mode**: switch 3 to adjust a core temperature set value(from 0 to 99°).



The multifunction display "SC" (Core probe -) followed by the temperature.
For example "SC 20", temperature at 20°
Variation is made degree by degree, from 0 to 99°C

When the set core temperature value is reached it will stop cooking and display the message "End".
A programmed set core value cancels a set time value previously programmed.

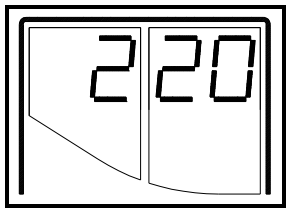
Without connected core probe.

Actuating this switch modifies core temperature set value.

With connected core probe.

Without actuating this switch, the display shows the **core temperature read by the probe**. (Example: "SC55" in °C or "P1 30" in °F).
A first touch on this switch displays the core temperature set value (0°to 99°C).
A final touch on this switch corrects the set core temperature value.

Switch 4 in **timing mode** : Switch 3 adjusts the set time value (from 0 to 99h).



The display indicates the time in hours and minutes.
The display is formatted: hh.mm
For example: 2.20, ie 2 hours and 20 minutes.
Variations:
- Minute by minute: from 0 to 1 hour
- Every 5 minutes: from 1 to 3 hours
- Every 15 minutes: from 3 to 4 hours 30
- Every 30 minutes from 4h 30 to 10 hours
- Every 1 hour from 10 to 99 hours

Cooking will be over when the time remaining is nil, the display shows the message "End" and the buzzer rings.

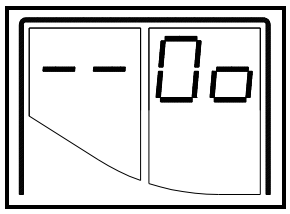
Note: Adjusting a set time value to 00 00 effectively selects manual mode. Cooking will not stop automatically (handy for keeping a given temperature…).

A programmed set time value cancels a programmed set core value.

Note: When starting cooking, the time begins to be count down when the oven approaches the set temperature (set temperature – 30℃).

Without connected core probe.
Actuating this switch adjusts the set time value.
With connected core probe.
The display shows a core temperature read as soon as the probe is connected to the appliance (Example: "SC55" in ℃ or "P1 30" in ℉).
A first touch on the switch shows the cooking time set value.
A final touch on the switch corrects the set time.

Switch 4 in the **ventilation speed mode** : switch 3 selects 2 ventilation speeds.



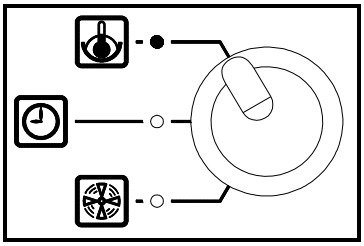
The display shows "-- 0o" or "-- -o"
"-- Oo": High speed
"-- -o": Low speed

Without connected core probe.
Without touching this switch, the display shows the **speed set**.
Touching this switch changes speed (low speed/High speed).
With connected core probe.
Without touching this switch, the display shows the **core temperature read**.
A first touch on the switch displays the ventilation speed.
A further touch on the switch changes speed (low speed/high speed).

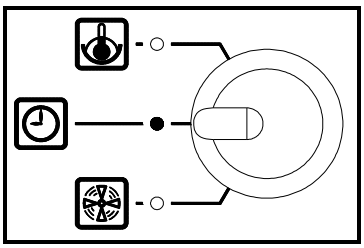
Switch 4 : Used during cooking

Without connected core probe.
The display shows the **time spent** starting from the beginning of cooking if the set time is nil.
If a cooking time has been set, the display shows the **time remaining** before cooking is completed.
In any case, the first touch on this switch results in the display of the set value corresponding to the position of switch 4 (cooking time, core temperature or speed).
A second touch on the switch results in the modification of this set value.
With connected core probe.
Without touching this switch, the display shows the **core temperature read by the probe**. (Example: "SC55" in ℃ or "P1 30" in ℉).
A first touch on this switch shows the **time remaining** untill cooking is completed.
A second touch on this switch displays the set value corresponding to the position of switch 4.
A final touch on the switch corrects this set value.

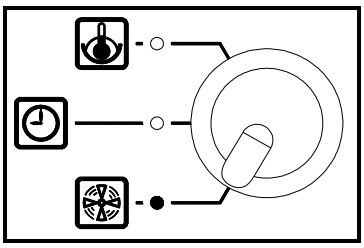
Switch 4: End of cooking mode



Core probe mode position
Cooking will stop when the core temperature (adjusted with switch 3) is reached.
A buzzer indicates that cooking is completed.
Note: The buzzer for completion of cooking sounds three times. The display shows "End".

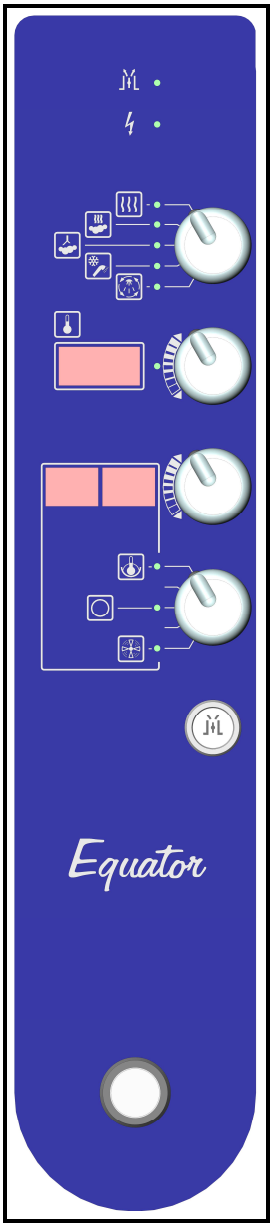


Timing mode position
Cooking will stop when the cooking time (set with switch 3) is over.
A buzzer indicates that cooking is completed.
Note: The buzzer for completion of cooking sounds 3 times. The display shows "End".



Ventilation speed mode position
Chooses between two ventilation speeds.
The reduced speed avoids the drying of products such as rice and pasta when reheating.

2.1.4 PRACTICAL USE OF THE CONTROL PANEL



Switch on the oven (switch 5).

Preheating

Select the preheating mode desired (button 1).

Choose the required temperature of the cavity (button 2) for preheating.
Warning: As a rule, preheat to about 10° above coo king temperature.

Select timer mode and set to 00.00 (button 4).

Cooking

Open the door, load the oven, close the door.

Select the cooking mode (button 1).

Choose the cooking temperature (button 2).

Connect a core probe, if needed.

Select timer mode with a time, time set at 00.00 or core probe (button 4).

Display a cooking time or core temperature if needed (button 3).

End of cooking

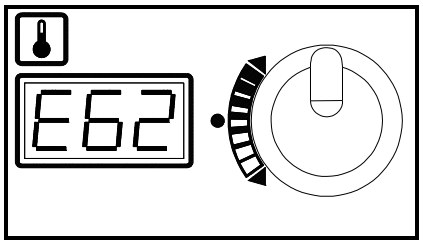
Open the door, unload the oven, close the door.

Select the semi-automatic cleaning cycle (switch 1).

Wait for the end of the cycle.

Switch off the oven (switch 5).

2.2 VISUALISATION OF DEFECTS



Switch for adjustment of set temperature
Each defect is shown on the display indicating the set temperature.
The defects E50 to E99 stop cooking or prevent the start of cooking and are announced by a “beep”.

Error Code	Default	Consequences	What to do ?
E40	Core probe with 1 ou 2 points non function	Cooking will continue	Replace the probe or arrange for a technician service
E41	Core probe with 1 ou 2 points in short circuit		
E42	Electronic overheating	Cooking will continue	Clean the air inlet (under 6 and 10 level ovens or behind for 20 level models). If the fault persists arrange for a technician service
E43	Steam saturation safety activated	Cooking will continue	Check the water supply. If the fault persists, arrange for a technician service
E46	Problem of communication between Electronic cards Relay - Facia	Facia inactive	Arrange for a technician service.
E53	Ventilation non function	Stop cooking	Stop the oven and arrange for a technician service
E61	Ambient probe in short circuit	Stop cooking	Stop the oven and arrange for a technician service
E62	Ambient probe non function		
E63	Core probe missing or non function	Connect a core probe or chefs decision	Connect or replace the core probe, or switch to timer mode
E64	Core probe in short circuit	Wait for a replacement probe or chefs decision	Replace the code probe or switch to timer mode
E67	Gas safety activated	Stop cooking	Check the gas inlet and restart the oven. If the fault persists, arrange for a technician service
E68	Cavity at over 290°C	Stop cooking	Stop the oven and arrange for a technician service

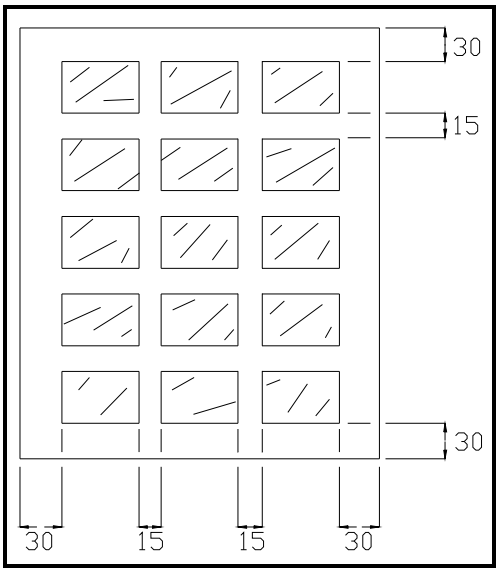
3 PRACTICAL TIPS FOR USE

3.1 LIMITS OF LOADS AND USE

INTERNAL CAPACITY OF OVEN:

MODEL	6 GN1/1	10 GN1/1	10 GN2/1	6+6 GN 1/1	20 GN1/1	20 GN2/1
GN 1/1 trays	6	10	20	6 + 6	20	40
GN 2/1 trays	-	-	10	-	-	20
Level number	6	10	10	6 + 6	20	20
Spacing between levels (mm)	80	65	65	80	64	64

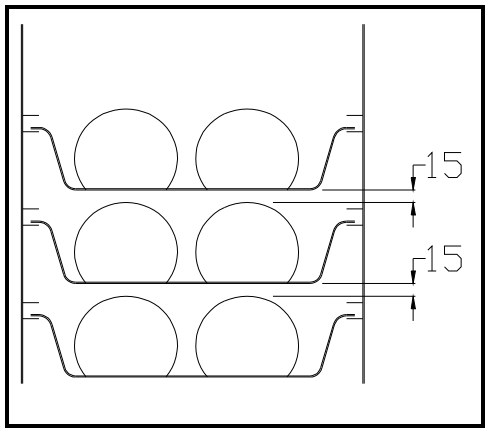
IMPORTANT: The number of levels used for the product to be cooked, as well as the number of portions to be placed on a given level will depend on the observance of the following rules for positioning.



min 15mm between cooked products

min 30mm between cooked products and the tray edges

15 mm between cooked products and the upper plate



NOTE: Depending on how these rules are observed, the number of levels used can be reduced (example: 1 level out of 2) depending on the size of the products treated.

UNEVEN COOKING OF PRODUCT ON TRAYS ARISES FROM TWO FACTORS:

LOAD:

Even cooking requires the correct circulation of air between products. These, when cooked, must be sufficiently spaced to allow this.

Too big a load may lead to excessive moisture, generating cooking differences.

TEMPERATURE:

- Preheating: The shorter and more delicate the cooking (less than 15 min), the closer the preheating temperature should be to the cooking temperature.
- Cooking temperature: It is always better to have a lower temperature than a higher one. In case of problems, lower temperature in 10℃ steps.

3.2 PREHEATING (20 level oven)

Whatever the mode, these ovens are designed for preheating with "TROLLEY in PLACE".

In the event that the trolley is not available:

- **Dry mode:** Adjust required preheating temperature, but stop the oven or put the trolley in place, once REQUIRED TEMPERATURE is reached.
- **Combi mode:** DO NOT USE. Always preheat in the DRY mode to required temperature (see above). Move to Combi mode for cooking with trolley in place (Instantaneous steam production).
- **Steam mode / Injection oven:** DO NOT USE: Always preheat in the DRY mode to 105°C. Pass to Steam for cooking with trolley in place (Instantaneous steam production).

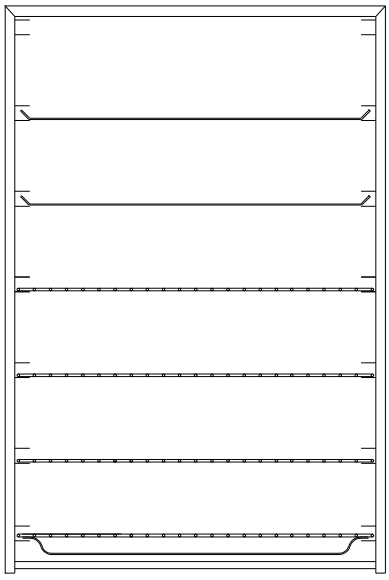
NOTE: The NON OBSERVANCE of these RECOMMENDATIONS will create problems for which the Manufacturer cannot be held responsible.

3.3 USE OF ROASTING TINS AND TINS

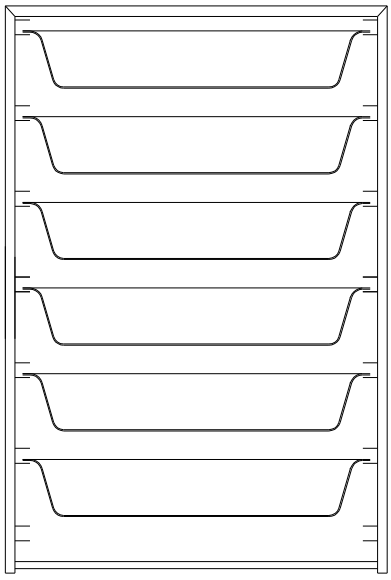
* PASTRIES:
  - Use backing trays for pastry.
* ROASTS:
  - Use the “gastronorm” roasting tins for preparing meats in sauces, braised meats….
  - For roasting, cook the products directly on the grills (chicken, roast beef, sausages….). In this case place a gastronorm tin (20 mm deep) on the bottom level to catch the cooking juice.

Positioning of plates, grids and tins

Baking tins for pastry or Stainless steel grills



Stamped roasting tins or gastronorm tins



4 CAPACITIES AND COOKING TIMES

The suggestions that follow are only given for guidance. They may vary according to the nature, type and volume of the product to be cooked and depend on the load put in the appliance, the recipe and the taste of the users. Assimilation of data will help in controlling the appliance since nothing can replace the chefs' ability and professionalism.

Injection ovens do not pose particular problems for steam cooking products provided they are fully loaded.
When cooking delicate products (fresh), in small pieces or with low loads, drying or a change of colour may occur. In this case, adjust the cooking temperature to 92°C, in order to perfect the result. Remark: Lowering the set temperature, for example to 92°C will generate an increase in the set time of about 5 to 10% maximum so is inconsequential.

KEY					
		Column "Mode":	S/M/V	means	3 cooking cycles: 1st Dry / 2nd Combi / 3rd Steam
Cooking MODES:	S = Dry	Column "°C":	180°/150°	means	1st cycle at 180°C / 2nd cycle at 150°C
	M = Combi	Column "Time":	15'/-	means	1st cycle for 15' / 2nd cycle with core temperature
	V = Steam	Column "Core °C":	-/60°	means	1st cycle timed / 2nd cycle with core temperature at 60°

PRODUCT	CAPACITY				PREHEATING		COOKING			
	In Kg or pieces per dish:	GN 1/1	GN 1/1	Useful levels	Mode	°C	Mode	°C	Time	°C Core T° to be adjusted
Pre-heating Dry					S	220°			10'	
Pre-heating Combi					S	180°			10'	
Pre-heating Overheated steam					S	110°			7'	
Pre-heating Steam					V	100°			7'	
Pre-heating Banqueting					S	130°			7'	
CLASSICAL ROASTING										
BEEF:										
Underdone roast beef	2,2kg joint / tin	3	6	1/2	S	220	M	180°	10'/500g	40°
Well done beef	2,2kg joint / tin	3	6	1/2	S	220	M	180°	12'/500g	45°
Braised beef	2,5 kg pieces / tin	3	5	1/3	S	180	M	140°	120'	
Frozen minced steaks	pieces / Grid	12	24		S	220	M	210°	15'	
Toulouse sausage	pieces / Grid	18	36		S	220	S	210°	30'	
VEAL:										
Veal roast	kg / Tin	7	14	1/2	S	180	M	150°	120'	75°
Stuffed rolled veal	kg / grid	7	11	1/2	S	220	S/M	210°/150°	15'/90'	-/60°
Knuckle	2,5 kg knuckle / tin	3	5	1/2	S	180	M	180°	90'	75°
PORK:										
Pork roast	kg / tin	6	12	1/2	S	220	M	170°	60'	66°
Pork collar	kg / tin	6	12	1/2	S	180	M	150°	120'	75°
Pork leg	kg / tin	8	16	1/3	S	180	M	140°	180'	75°
Knuckle	700g knuckle / tin	10	16	1/2	S	180	M	180°	60'	
Pork chops	pieces / grid	12	24		S	180	S	140°	60'	68°

PRODUCT	CAPACITY				PREHEATING		COOKING			
	In Kg or pieces per tin:	GN 1/1	GN 2/1	Useful level	Mode	°C	Mode	°C	Time	°C Core T° to be adjusted
LAMB:										
Best end of neck	pieces / tin	4	8		S	180	S	150°	25'	60°
Leg	2 kg leg / tin	3	6	1/2	S	220	M	180°	60'	60°
GAME:										
Deer loin	pieces / tin	6	12		S	180	M	180°	45'	60°
Hare saddle	pieces (200g) / tin	4	8		S	220	S	210°	25'	60°
CHICKEN/ RABBIT:										
Frozen roasted chicken	1.2kg chicken /grid	6	9	1/2	S	220	M/S	140/220°	30/35'	
Fresh roasted chicken	1.2kg chicken /grid	6	9	1/2	S	220	S	220°	40'	
Chicken breast	pieces / tin	12	24		S	110	V/V	100/75	10/12'	
Duck breast	cutlets / grid	6	12		S	180	M	180°	20'	
Roasted duck	1.8 kg duck / tin	4	8	1/3	S	220	S	200°	45'	
Roasted rabbit leg	pieces / grid	10	20		S	220	S	200°	30'	
MISCELLANEOUS										
Meat pâté	kg / grid	6	12	1/2	S	180	M/S	180°/170°		50°/62°
Lasagnes	pieces / tin	18	36		S	180	M/S	180°/220°	25/15'	
LOW T° ROASTING	**(quality cooking)**									
Roast beef underdone	2.2kg joint / grid	3	6	1/2	S	220	S/V/V	210/70/60°	15'/-/-	-/38/52°
Well done roast beef	2.2kg joint / grid	3	6	1/2	S	220	S/V/V	210/70/65°	15'/-/-	-/42/55°
Stuffed veal joint	kg / grid	6	12	1/2	S	220	S/V	210°/100°	15'/-	-/66°
Pork joint	kg / tin	6	12	1/2	S	220	M/S	180°/120°	15'/-'	-/68°
Leg	kg / tin	8	16	1/3	S	180	V/V	100°/80°		50°/70°
Lamb leg	2 kg leg / tin	3	6	1/2	S	220	S/V/V	210/100/70	15'/-/-	-/48/60°
VEGETABLES										
Fresh cauliflower	kg / perforated tin	2,5	5		V	100	V	100°	20'	
Frozen cauliflower	kg / perforated tin	2,5	5		V	100	V	100°	40'	
Fresh French beans	kg / perforated tin	1,5	3		V	100	V	100°	25'	
Frozen French beans	kg / perforated tin	2,5	5		S	110	V	100°	35'	
Fresh broccoli	kg / perforated tin	1,5	3		V	100	V	100°	20'	

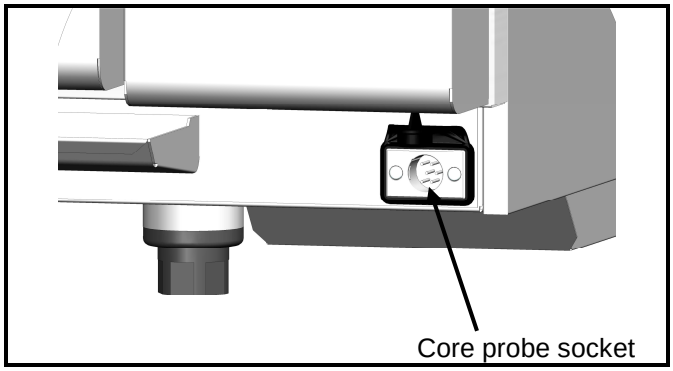
PRODUCT	CAPACITY				PREHEATING		COOKING			
	In Kg or pieces per dish:	GN 1/1	GN 2/1	Useful levels	Mode	°C	Mode	°C	Time	°C Core T° to be adjusted
VEGETABLE (Continuation)										
Frozen green peas	kg / perforated tin	2,5	5		S	110	V	100°	7'	
Fresh cut carrot	kg / perforated tin	2	4		V	100	V	100°	25'	
Frozen carrot slices	kg / perforated tin	2,5	5		S	100	V	100°	35'	
Frozen spinach	kg / perforated tin	2,5	5		S	110	V	100°	30'	
Chard	kg / perforated tin	0,8	1,6		S	110	V	100°	5'	
Fennel	kg / perforated tin	2	4		V	100	V	100°	20'	
Courgette slices	kg / perforated tin	0,8	1,6		S	110	V	100°	13'	
POTATOES										
Boiled potatoes	kg / perforated tin	3	6		S	110	V	100°	25'	
Roasted potatoes	kg / tin	3	6		S	220	S	220°	25'	
RICE	(2 volumes of rice/ vol. water)									
Rice pilaf	kg / tin	1	2		S	180	M	130°	27'	
EGGS										
Hard-boiled eggs	Eggs / perforated tin	40	80		S	110	V	100	10'	
Soft-boiled eggs	Eggs / perforated tin	40	80		V	100	V	100°	5'	
FISH & SHELLFISH										
500 to 600g lobster	500 g unit / perforated tin	3	6		S	110	V	100°	8'	
Whole fish steamed	kg / perforated tin	6	12	1/2	V	100	V/V	95°/78°	20'/-	-/70°
Steamed fish filet	filets / perforated tin	12	24		V	100	V	90°	10'	
Steamed fish steak	Pieces / perforated tin	12	24		V	100	V	75°	10'	
Steamed mussels	kg / tin	2	4		V	100	V	80°	9'	
Fish terrine	1.2 kg terrines / grid	4	8	1/2	V	100	V	80°	105'	75°

PRODUCT	CAPACITY				PREHEATING		COOKING			
	In Kg or pieces per dish:	GN 1/1	GN 2/1	Useful levels	Mode	°C	Mode	°C	Time	°C Core T° to be adjusted
BREAD/PASTRY/DESSERTS										
Pizza (tray baked)	kg per tray (Ht 40 mm)	2	4		S	220	S	180°	20'	
Quiche	pieces diam.10cm per tray	15	30		S	220	S	200°	30'	
Fresh bread	Rolls (50 to 100g) per tray	15	30		S	220	M	165°	30'	
Precooked frozen long baguettes	pieces per tray	4	8		S	220	M	180°	7'	
Small loaf of bread	pieces per tray	6	12		S	180	M/S	175°/180°	15/20'	
Frozen croissants	croissants per tray	8	16		S	180	M	165°	20'	
Frozen meat pasties	friands per tray	16	24		S	220	S	175°	30'	
Vol au vent	pieces per tray	28	42		S	180	S	175°	20'	
Caramel crème	pieces per perforated tin	24	48		V	100	V	85°	35'	
Cream puffs / Éclairs	pieces per tray	15	30		S	180	S	165°	30'	
Sponge cake	On tin (Ht 40 mm)				S	180	S	160°	30'	
Flaky pastry	pieces	16	24		S	180	S	175°	30'	
Rolled biscuits	On tin (Ht 20 or 40 mm)				S	180	S	150°	15'	
Apple pie	pieces per tray	15	30		S	220	S	200°	35'	
BANQUETING										
Dishes of vegetable and garnishes	Cycle 2 in ½ speed and				S	130	S/M	120°/135°	2'/3'	
Dishes of pasta and rice	Injection rate at 50%.				S	130	S/M	120°/135°	2'/3'	
Dishes of meat slices	"				S	130	S/M	110°/115°	1'/5'	
GN tin of vegetable and garnishes	"				S	130	M/M	130°/130°	7'/9'	
GN tin of rice and pasta	"				S	130	M/M	125°/125°	6'/9'	
GN tin of meat slices	"				S	130	M/M	115°/110°	5'/8'	
Growing chamber (Frozen pâtons)	In ½ speed						S	28°	30'	

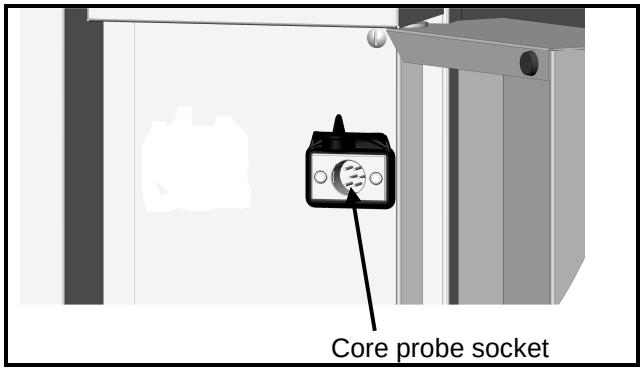
5 CORE PROBE SOCKET

The core temperature socket is fitted with a silicone protective cover.

6 and 10 level ovens



20 level ovens



WARNING:

- Always put the protective cover in place (lowered lid to protect connections) whenever sockets are not used.

- Never “clean” connections with a water hose or a sponge. (If the silicone cover are used and put back in place after they are used, no maintenance is necessary).

- The guarantee will not apply if these recommendations are not observed.

6 TOOLS FOR OPTIMAL COOKING

6.1 CORE PROBE

The core probe permits the perfect control of the level of your cooking which can be reproduced day after day whatever the size of the product.
The core temperature to be reached will vary, of course, with the kind of product and the cooking level desired.

WARNING:

The cooking of a product does not stop at once when removed from the oven.
As a matter of fact, after standstill, the core temperature continues rising to reach a temperature all the higher as the product has been cooked at a high temperature.

Example:

Beef roasted in combined mode at 200℃ and removed from the oven at the time when its temperature reaches 40℃ will see the latter rise to about 57℃ .
The same beef, steam-cooked at **low temperature** at 60℃ (as a last phase) and removed from the ove n at the time when its core temperature has reached 52℃, will evolve very little reaching 56℃.

PRODUCTS	CORE TEMPERATURE **TO BE REACHED**	CORE TEMPERATURE **When REMOVED FROM THE OVEN**	
		Classical cooking according to the chart annexed	Low temperature cooking
Red meats			
Very rare	54	37	50
rare	56	40	52
Just done	60	45	56
Well done	62	48	59
White meats			
Veal	72	58	69
Poultry	77	63	75
Fish			
Salmon – Tuna	75	75	75
White fleshed fish	80	80	80
Pork preparations – terrines	67	65	65

NOTE: Recommendation for controlling the core temperature (cooking degree):

To control properly the degree of cooking, the aspect and the weight loss, more especially in the case of red meats, we recommend **finishing cooking with a low temperature steam phase.** Adjust the temperature 8℃ above the core temperature desired.

Example: Roasting beef:

1st phase:	Coloration	Dry air	210℃	for 15 minutes
2nd phase:	Core cooking	Steam	60℃	Till core T°= 52℃

The cooking time increases to about 1 hour 25 minutes.

6.2 LOW TEMPERATURE COOKING

To optimise certain types of cooking, electronic regulation allows for long low temperature cooking. The set temperature corresponds to the core temperature which must be achieved.
Low temperature is indispensable for treating big pieces (sucking pig, leg of pork (ham), big fish), often treated in vacuum bags.
This cooking mode is also worthwhile for perfectly controlling the cooking level (very rare, rare, well done…), for the aspect (external and sliced), for diminishing weight loss, but also for being safer from a hygienic point of view in the preparation of food products.
The quality of cooking is also much less sensitive to the size of the products treated, as well as to their quality.
The time necessary for cooking entirely conducted at low temperatures is of course longer.

LOW TEMPERATURE			
Products	**Mode**	**Cooking T°**	**Approx. time**
Products **Red meats**	Steam	55°C	6 h to 12 h
White meats Veal Pork and poultry	Steam	72°C 77°C	
Pork preparations and terrines	Steam	67°C	
Fish Salmon – Tuna White fleshed fish	Steam Steam	75°C 80°C	2 h to 4 h
Miscellaneous Farm produced foie gras Fruit	Steam Steam Steam	70°C 90°C 85°C	1 h to 1 h 30'

NOTE: Medium size pieces of meat (joints, leg of lamb…)

It is possible to significantly reduce the cooking times (2 or 3 times less), for medium sized pieces and still partly keep the advantages above, by following:

Products	**1st phase COLORATION**	**2nd phase COOKING**	**3rd phase COOKING**
	Blown air	*Steam*	*Steam*
Red meats	210°C For 15 min	70°C till Core T°= 38°C	60°C till Core T°= 52°C
White meats	210°C For 15 min	90°C to Core T°= 60°C	85°C till Core T°= 73°C

7 MAINTENANCE

7.1 ABOUT STAINLESS STEELS

Stainless steel is a type of steel designed to allow a thin protective film to form on the metal surface and to protect it against corrosion (Oxide film resulting from the chemical reaction of oxygen on the metal surface).

Any element disturbing the formation of this film, or making its partial destruction easier (Food deposits, overflows, stagnant liquids...) affects stainless steel resistance to corrosion.

If the composition of stainless steel allows it to resist to certain chemical aggressions better than standard steel, **do not imagine that stainless steel is indestructible**.

3 main factors of corrosion should be checked:

- The chemical environment. In general:	* Various brines (Salt concentration, sauerkraut …)
	* Chlorides, particularly in: - Cleaning products - Bleach.
- Temperature:	Any chemical environment sees its aggression towards stainless steel considerably increased at higher temperature.
- Time:	The longer the contact time between stainless steel and the chemical environment is, the more perceptible the consequences of the corrosion will be.

The combination of these three factors can lead to the destruction of interior surfaces, even those of high quality stainless steel.

Note that when stainless steel corrodes, it is extremely rare that it comes from the steel itself. Generally, inappropriate or badly used cleaning products, bad maintenance or extreme conditions of use are often the cause of the problems encountered.

WARNING

The manufacturer can not be held responsible for cases of corrosion encountered in these conditions and no warranty will then apply.

A list of the most frequent cases is given below, so that you can identify these possible causes of bad use and maintain the service life of your equipment as long as possible.

7.2 THE MOST COMMON CASES OF CORROSION:

Floor cleaning

The cleaning of tiles (after work, or during regular service) is often carried out with very aggressive products. If the product is sprayed under pressure without caution, the splashes at the bottom of the appliances cause corrosion of bottoms and trimming panels.

Even worse, the steam arising from these products, if the premises are not immediately and strongly ventilated, deposits on the equipment and can extend the corrosive action to all surfaces.

Inappropriate cleaning products (Bleach, Acids, Soda)

If products, such as Bleach, acid or soda dilutions,... (all products not specially designed for use on stainless steel) are used, an irreversible etching occurs on the stainless steel surfaces.

Cleaning product applied at a temperature that is too high

All cleaning products become more aggressive if applied to a hot surface. As a general rule, the temperature must not be higher than 60°C, in order not to attack the stainless steel in an irreversible way (Blackening of surfaces...).

Cleaning product not properly rinsed

If the walls once cleaned are not thoroughly rinsed in order to eliminate any trace of cleaning product, the latter, with time, will carry on its action and risk being the cause of the start of corrosion.

Even worse, if this wall is to be subjected to temperatures higher than 60°C (oven, tank internals, cooking tops...), the problems mentioned will inevitably occur.

Stagnation of cleaning products

In the same way, any area that can retain some cleaning products, in particular gutters, drains of combi ovens, traps,... must be rinsed thoroughly and abundantly. (Use a nylon brush to strengthen the rinsing action with clear water).

Salt concentration

Salt, which is an ordinary element in cooking, is often the cause of etching (rust pitting) stainless steel. Spillage on the cooking surfaces must be cleaned out immediately

Special case of boiling in a boiling pan:

Salting the water by throwing cooking salt into the tank, presents a risk: The cooking salt, by settling at the bottom of the tank may, before dissolving, corrode it in an irreversible way, if the operation is frequent.

Water should be stirred until the salt has completely dissolved, or table salt should be used.

Intensive use in brine environment

Certain products such as sauerkraut (acid juices), seafood (presence of salt), and generally speaking, brine should be given particular attention. In case of occasional use and standard equipment this does not cause a problem, if they are thoroughly and systematically cleaned after each use.

In case of intensive treatment, cooking equipment (Cooking ovens, boiling pans...) should be chosen with steel specifically designed for this type of operation.

Mains water too chlorinated

At times certain water supplies have too high a chlorine content. In these cases, it is not rare to find the corrosion problems mentioned above. (Notably in boiling pans, bratt pans, bain-marie,…).

Cleaning aluminium or aluminised iron accessories

The presence of aluminium or aluminised iron in a chlorinated solution considerably increases attack against stainless steel.

Do not leave accessories such as basket filters or any aluminium ovenware in boiling pans, frying pans ... One night would be enough to attack stainless steel at the level on the contact points and on the surface of the product.

8 MAINTENANCE OF THE OVEN

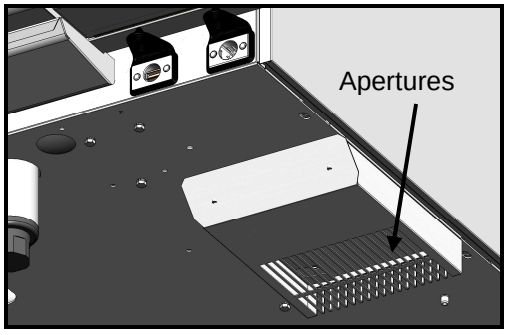
WARNING:

- THE APPLICATION OF CLEANING PRODUCTS WHEN THE APPLIANCE IS STILL HOT, OVER 60°C, IS STRICTLY PROHIBITED.
  The hot surfaces would be damaged instantly (dark colour almost black).
- Never use high pressure sprays or hoses: under no circumstances should the appliance be cleaned with a water jet.
- The guarantee will not cover problems caused by failure to comply with the maintenance rules above.

8.1 CLEANING OF AERATION APERTURES OF THE ELECTRONIC COMPARTMENT

Cooling the electronic compartment is ensured by means of the ventilation apertures at the right front of the equipment (6 and 10 level).

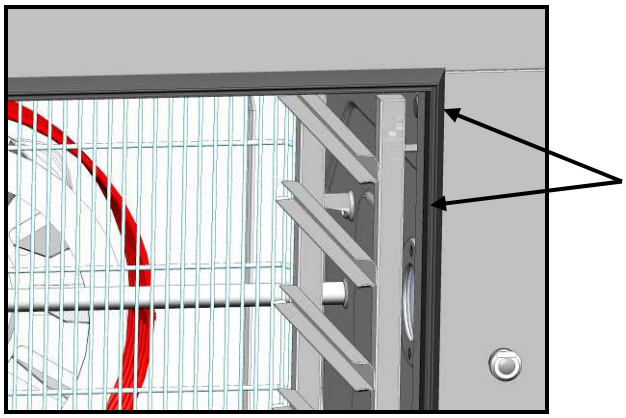
Once a week, check that the aeration grid is clean and not obstructed by dust by cleaning its surface with a dry cloth.



8.2 CLEANING OF THE CAVITY GASKET

In order to remove traces of grease or food scraps that can damage the gasket, regular and manual cleaning of the cavity gasket should be performed on the inner and outer faces.

Before cleaning process, use water with soap or neutral and nonabrasive detergent with a sponge or a soft cloth to remove the grease from the cavity gasket.



8.3 MAINTENANCE OF EXTERNAL SURFACES

It is necessary to clean the metal surface carefully so as to eliminate all dust, metal particles and deposits of any kind which could damage the protective layer mentioned above.

For this purpose, it is sufficient to wash these surfaces with soapy water or any other neutral and non abrasive cleaning product. RINSE CAREFULLY and wipe the surfaces.

Never scrub stainless steel with metal wool, but if necessary, only with a "Scotch Brite" type pad or a similar product, by following the direction of polishing of the stainless steel surface.

8.4 MAINTENANCE OF INTERNAL SURFACES

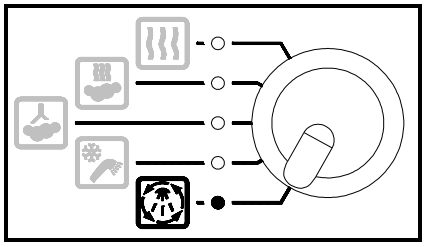
The general principle consists in not letting to leave the following settle in certain places:

- substances likely to become concentrated and so become very corrosive.
- Settling of different minerals contained in water and likely to generate corrosion (walls) performance and life-duration (fan balancing, exchanger dissipation, ..) problems.

CLEANING, DEGREASING – ONCE A DAY:

DESCALING: Every day if necessary.
If there are any mineral deposits (whitish specks) as a result of un-softened water in the cooking chamber this must be removed daily.
Repeat the procedure below (Use of the semi-automatic cleaning cycle) completely but using a descaling agent especially designed for descaling stainless steel.
Spray the product on the areas covered by scale (Fans, heating elements, walls).
The automatic cleaning system (option) is exclusively designed to achieve an introduction of cleaning and degreasing chemical. Never use a descaling agent. This would damage the hydraulic system of the oven irreversibly.

8.4.1 USE OF THE SEMI-AUTOMATIC CLEANING CYCLE.



Every day after the service is completed, position switch 1 to the "semi-automatic cleaning" position.

If the temperature is not appropriate for cleaning the temperature display will flash and the oven will heat up or cool down automatically to reach this temperature. Once this temperature is reached, the display indicates "Pro" and the oven will ring to warn you.

Always wait for the oven to ring before spraying on a cleaning agent.

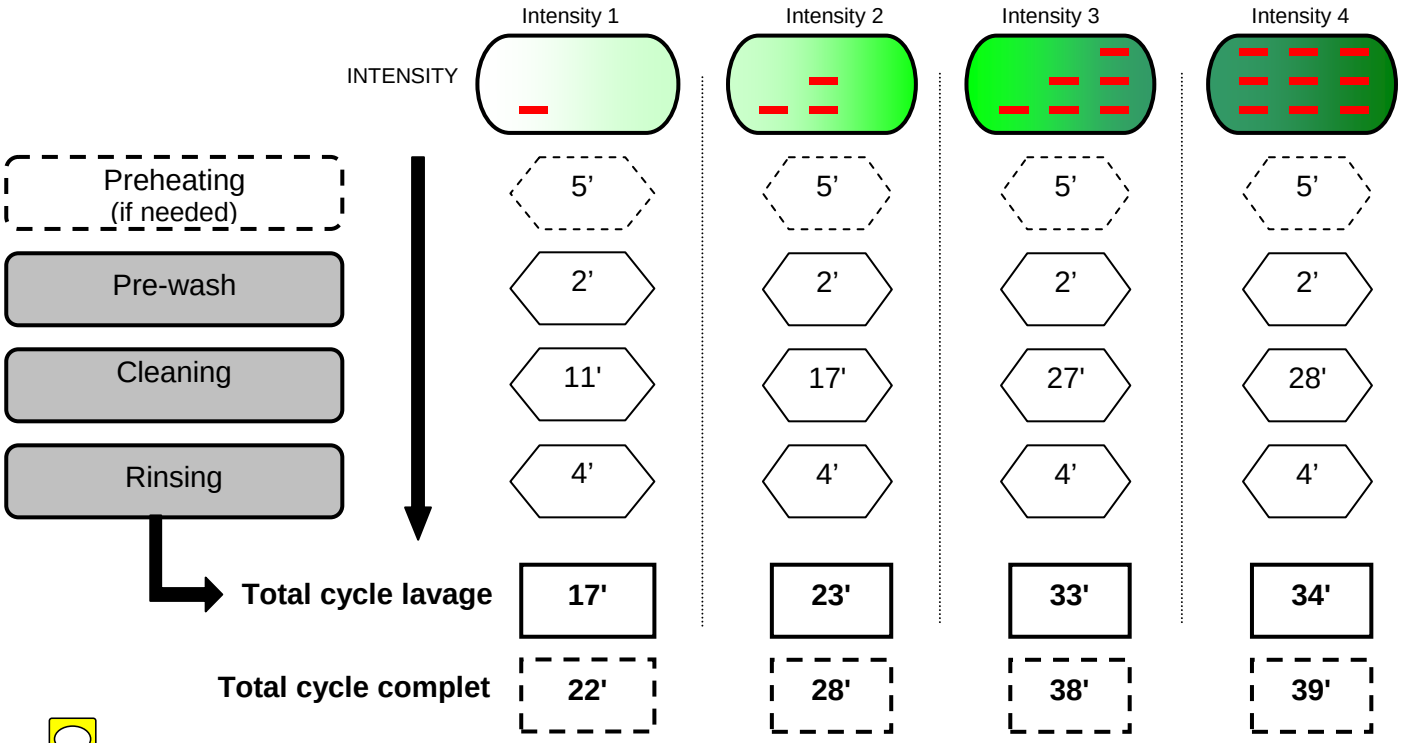
After the alarm has sounded:

- Open the door (without switching the oven off).
- Remove the right hand runners or the oven module (optional).
- Unlock the ventilation duct and open it by pulling it towards you (see figure paragraph 8.5 further on) for 10 GN2/1 and 20 level ovens. For other models leave the ventilation duct in place.
- Thoroughly spray the sides and exposed rear panels with cleaning product
  Use a product specifically intended for cleaning the cavity of professional stainless steel ovens.
- Close and lock the ventilation duct if appropriate.
- Thoroughly spray the cooking cavity.
- Put the runners or cooking module back in the oven.

- Spray the runners or module and the inside face of the door.
- Close the door.
- The cleaning cycle will start automatically and lasts 33 minutes. The time display indicates the remaining cycle time and the temperature display shows the set cycle temperature.
- At the end of the cleaning cycle the temperature display alternates between End and the ovens set temperature. The time display reads "00 00" and the oven alarm sounds (the buzzer sounds 5 times).

8.4.2 USE OF THE AUTOMATIC CLEANING CYCLE (AUTOMATIC CLEANING OPTION).

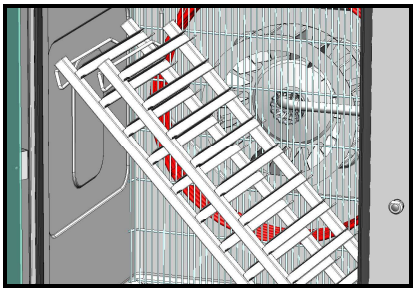
Cycle and times:



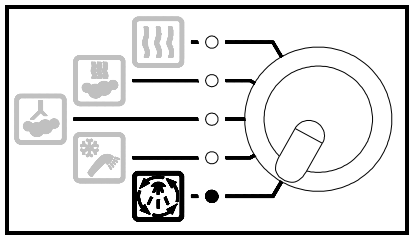
Selection of cleaning intensity depending on the model of the oven :

	LIGHT	MEDIUM	INTENSIVE
CombiOven 6 levels GN1/1	intensity 1	intensity 2	intensity 3
CombiOven 10 levels GN1/1	intensity 1	intensity 2	intensity 3
CombiOven 10 levels GN2/1	intensity 1	intensity 2	intensity 3
CombiOven 20 levels GN1/1	intensity 2	intensity 3	intensity 4
CombiOven 20 levels GN2/1	intensity 2	intensity 3	intensity 4

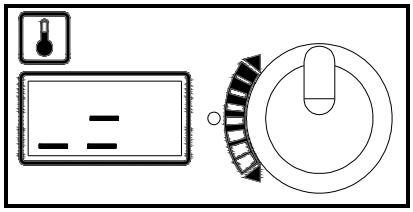
Procedure :



- Tilt the racks and place it into the cavity with slides positionned upward



- Every day after the service is completed, position switch 1 to the "semi-automatic cleaning" position.



- Choose the cleaning intensity with button 2.
  Choice is possible during pre-wash cycle (see time above) (during flashing of the display)

- Check the pipes are connected to the chemical containers and that the quantities are sufficient. If not refer to the paragraph **"Replacing the chemical containers"**
- The cleaning cycle will start automatically and lasts 17 to 39 minutes. Time display will indicate remaining time before end and ambient temperature display indicate cleaning intensity.
- At the end of the cleaning cycle, The time display indicates "End". The time display reads "00 00" and the oven alarm sounds (the buzzer sounds 5 times).

8.4.3 STOPPING OF THE CLEANING CYCLE (AUTOMATIC CLEANING OPTION)

To stop the the cleaning cycle, change the mode with button 1.
Depending on the progress of the cleaning cycle, it will be immediately stopped or will go directly to rinsing before stopping.

Cycle in progress	Action
Preheating	Stop immediately
Prewash	
Cleaning	Rinsing cycle before stop
Rinsing	Finish rinsing then stop

IMPORTANT: If mains power is interrupted during a cleaning cycle you MUST not change the position of switch 1 until a rinse has been performed. Failure to adhere to this instruction could result in damage to the oven interior.

8.4.4 REPLACEMENT OF THE CHEMICAL CONTAINERS (AUTOMATIC CLEANING OPTION)

The cleaning and descaling chemical supply hoses are labelled and have colour coded plugs which correspond to the container:

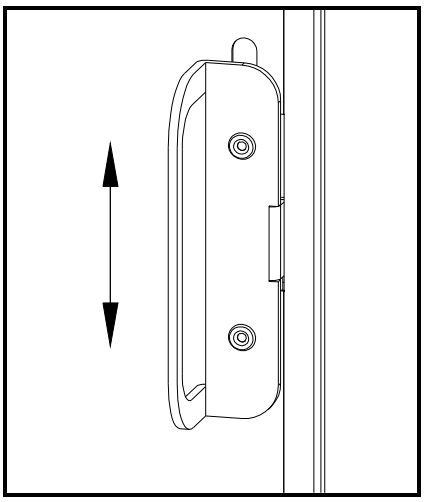
Note: Refer to the “Recommendations” chapter when handling or using these chemicals, if in any doubt refer to the products safety sheet.

Cleaning
(coloured green)

8.5 MATERIEL USE FOR COOKING CORROSIVE PRODUCTS (Sea fish, sauerkraut)

The materials used intensively and regularly for cooking corrosive products, such as sea fish, sauerkraut, …, should be cleaned carefully and systematically after each use.

8.6 UNLOCKING THE ROTATING DUCT (on 6 and 10 level, 10 GN2/1 and 20 level ovens)



Procedure

- Lift the handle.
- Pull the duct outwards.

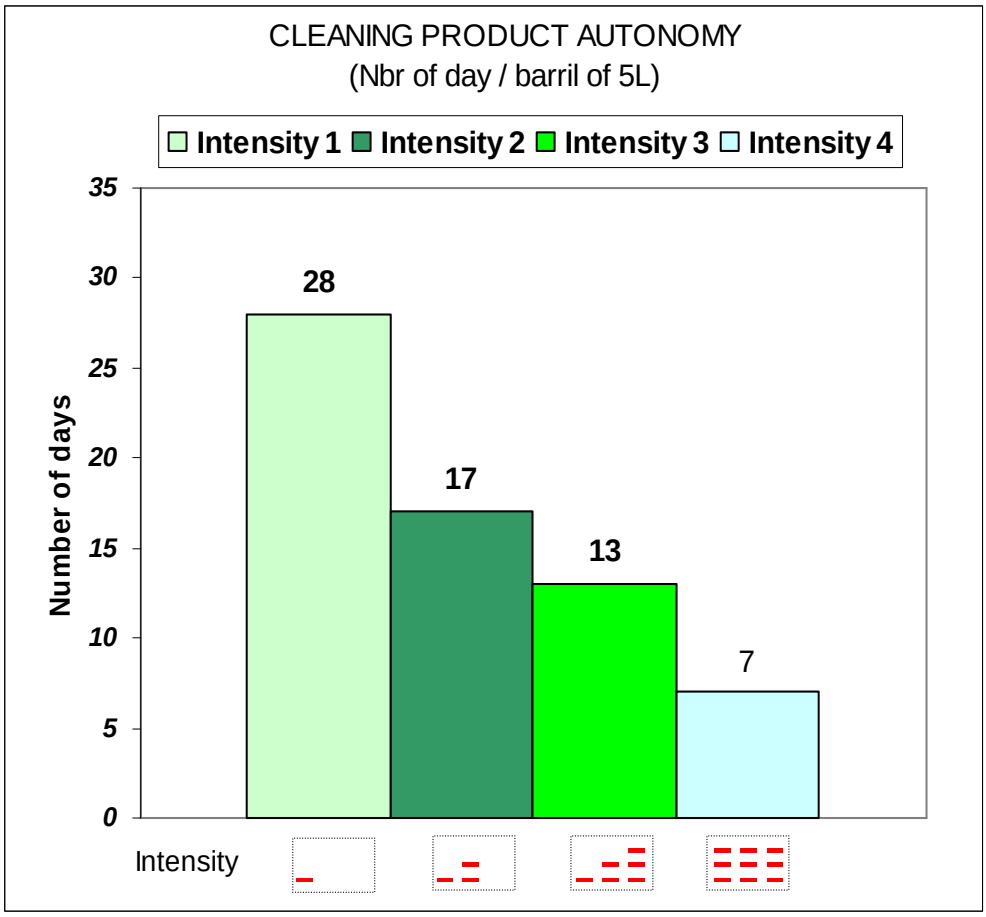
9 CONSUMABLES

9.1 GENERAL

We recommend the use of products supplied by the manufacturer for cleaning your equipment and to guarantee effective results.

Contact your distributor who can supply these detergent and descaling chemicals.

9.2 CLEANING PRODUCT



Consumptions based on 1 daily cleaning

10 GUARANTEE

WARNING! NO WARRANTY IS UNCONDITIONAL

Our warranty only applies to normal use, i.e. in strict compliance with the recommendations indicated in our service and maintenance notices.

It is also only valid if our technicians carry out the regular recommended service and/or inspection visits.

Subject to the above reservations, our appliances are normally guaranteed for a period of one year, running from their date of manufacture. In the event of breakdowns due to defects or to manufacturing errors either apparent or hidden, throughout the period of warranty our appliances are repaired at our cost, pieces and labour included.

For the warranty to be effective our appliances should not have been modified nor repairs carried out with pieces which are not original or approved by us, or by non-qualified personnel or those who have not been trained by ourselves.

In the event of a breakdown or failure, the purchaser should inform us in writing as soon as possible of any defects attributed to our appliances. No attempt should be made to remedy the defect directly or via a third party.

Regular service inspections and maintenance by our engineers are an essential condition for a correct and reliable operation of our equipment. Such service and maintenance operations can and must only be carried out by our technicians, who are not only fully qualified but also trained to do so. They have the right tools, original spare pieces and are given regular training updates on the appliances. Periodic servicing is essential, it is carried out at a cost but guarantees a reliable operation of our appliances.

The timing of service and maintenance is relative to the conditions of use. In the event of heavier conditions, it will be necessary to carry out certain operations more frequently.

WARNING: Damage caused by the connection of our appliances to a power supply which does not comply with the instruction plate (voltage, phase/neutral cycles...) or with the phase order (particularly important for three-phase motors, direction of ventilation, jacks...) shall in no case be covered by our warranty.

This is why it is recommended that the appliances are only connected when power is available and these things can be checked.

HOBART

ECO-UNIPRO

DESCALE-PRO

CLEANING and DESCALE PRODUCT

COSH SHEETS

FOR

COMBI PLUS / COMBI PRO

.....

.....

...

SOMMAIRE

CONTENT

SAFETY DATA SHEET

I. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPAGNY / UNDERTAKING

HOBART

Hobart House,
51 The Bourne,
Southgate,
London
N14 6RT
www.hobartuk.com

Société : INRS / ORFILA http : /www.centres-antipoison.net

Clearance Code
UN3254

DESCALE PRO
Chemical Product for descaling

Product code
DESCALEPRO

To :

II. COMPOSITION / INFORMATION ON INGREDIENTS

Full text of risk appearing in section 3: see section 16

INDEX	CAS	CE	Nom	Symb.	R :	%
015-011-00-6	7664-38-2	231-633-2	PHOSPHORIC ACID ...%	C	C ; R34	25 <= x % < 50
Other substances representing a hazard :						
No known substance in this category is present						
Substances present at a concentration below the minimum danger threshold						
No known substance in this category is present.						
Other substances with occupational exposure limits :						
	34590-94-8	252-104-2	DIPROPYLENE GLYCOL MONOMETHYL ETHER			2.5 <= x % < 10

III. HAZARDS IDENTIFICATION

This product is not classified as flammable.
Irritant - irritating to eyes and skin.
The classification of corrosive substances is based on a extreme pH value (in accordance with 2001/59/EC, annex VI, paragraph 3.5.2)

IV. FIRST AID MEASURES

Eyes: Wash thoroughly with soft, clean water holding the eyelids open. If there is any redness, pain or visual impairment, consult an ophthalmologist.
Inhalation: In the event of inhalation, transport the patient to free air and keep it with heat and rest.
Skin: Remove all contaminated or stained closing immediately.
Ingestion: In the event of ingestion of solution diluted or very small quantity, give a small quantity of water and consult a doctor if abdominal pains appear. In the event of ingestion of concentrated solutions, do not make drink and do not make vomit.

V. FIRE FIGHTING MEASURES

Non Flamable.
Suitable extinguishing media

Cool the containers exposed by fire

The recommended agents of extinction are the carbon dioxide, the chemical powders and foams. Fire-fighting are to be equipped with autonomous insulating breathing apparatus.

VI. ACCIDENTAL REALEASE MEASURES

Wear suitable PPE. Avoid any contact with the skin and the eyes. Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, or vermiculite.

Methods for cleaning up:

Neutralise with a basic decontaminating product for instance a carbonic sodium water solution or similar. If the ground is contaminated, once the product has been recovered by sponging with an inert absorbent material, wash the contaminated area with plenty of water. Clean preferably with a detergent, do not use solvents.

VII. HANDLING AND STORAGE

Avoid contact with skin, eyes and clothing and wear appropriate PPE. Undiluted chemical should not be used.
Suitable and safe locations should be used for containers in use.
Prevent access by unauthorised personnel. Do not smoke.
Keep the container tightly closed and upright in a dry place. Packages must be reserved preferably in driving position.

VIII. EXPOSURE CONTROL / PERSONAL PROTECTION

Hand: Suitable gloves must be used. Gloves recommended: butyl rubber, neoprene, nitrile.
Eyes: Avoid contact with eyes and use eye/face protection if handling neat product. Provide eye washes in workshops where the product is constantly handled.
Skin: Wear clothing resistant to Alkalis. These items must be kept in good condition and cleaned.
Respiration: Personal protection is not normally required unless concentrations become higher than the limits of exposure.

IX. PHYSICAL & TECHNICAL PROPERTIES

General information :	
Physical state	Fluid Liquid
Important health, safety and environmental information :	
pH of substance or preparation	Strongly acidic.
When a pH measure is possible, it has a value of	2.00
Boiling point/boiling range :	Not specified
Flash Point interval	Not relevant
Vapour pressure	Not relevant
Density	> 1
Water solubility	Soluble
Others information :	
Melting point/melting range	Not specified
Self-ignition temperature	Not specified
Decomposition Point/decomposition range	Not specified

X. STABILITY & REACTIVITY

Keep away from Alkaili's. Provided the product is stored in accordance with the approved guidelines there are no hazardous decomposition products.
Dangerous reaction with Javel (sodium hypochlorite) with chlorine gas formation.

XI. TOXICOLOGICAL INFORMATION

Eyes: Irritant, caustic lesions if a decontamination is not quickly carried out.
Skin: Irritant, caustic lesions if a decontamination is not quickly carried out.
Inhalation: Irritation of the respiratory mucous membranes: conjunctiva hyperhemy
Ingestion: Irritant. Pains oral, intestinal and epigastria, burns of the oral cavity.

XII. ECOLOGICAL INFORMATION

Ecotoxicity
For phosphoric acid > 25% - FISH – CL50 (96h) = 138mg/L

XIII. DISPOSAL CONSIDERATION

This product does not contain a prescribed substance under the Environmental Protection Act Regs but is included as special waste under the Control of Substances Regs. For small quantities, wear suitable PPE (gloves and face/eye protection). Dilute to 1% and pour down waste system. Containers should be rinsed at least twice and recycled or disposed through a designated waste carrier. For large quantities a certified waste carrier should be used.

Soiled packaging:
Keep label on container – Give to a certified disposal contractor.

XIV. TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for the road, RID for the rail, IMDG for the sea and OACI/IATA for air transport.

UN3264 = CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

(phosphoric Acid …%).

ADR/RID	Class	Code	Pack Gr.	Label	Ident.	QL	Provis.	EQ	Cat	Tunnel
	8	CI	III	8	80	LQ7	274	E1	3	E

IMDG	Class	2° label	Pack Gr.	LQ	EMS	Provis.	EQ.		
	8	-	III	5 L	F-A,S-B	223 274	E1		
IATA	Class	2° Label	Pack Gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	III	818	5 L	820	60 L	A3	E1
	8	-	III	Y818	1 L	-	-	A3	E1

XV. REGULATORY INFORMATION

Corrosive

Contains :

231-633-2	PHOSPHORIC ACID

Particular hazards associated with the preparation and safety recommendations:

R 35	Cause severe burns
S 26	In the event of contact with the eye, rinse immediately and thoroughly with water and consult a specialist.
S 36/37/39	Wear appropriate protective clothes, gloves and a protective device for eyes/face.
S 45	In case of an accident or a weakness, call for a Doctor immediatly (if possible, show him the label.
S 60	This material and its container must be disposed of as hazardous waste.

XVI. OTHER INFORMATION

The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties.

Full text of risk phrases appearing in section 3:

R 22	Harmful if swallowed
R 35	Causes severe burns

Labelling for contents (Regulation EC n°648/2004 - 907/2006):

- less than 5% : nonionic surfactants

ECO-UNIPRO

DETERGENT LIQUIDE ECOLOGIQUE POUR LE LAVAGE AUTOMATIQUE DES FOURS de CUISSON VAPEUR

CARACTERISTIQUES :

100 % écologique
Liquide couleur paille.
pH : alcalin
Miscible dans l'eau en toute proportion.
A base de tensio-actif d'origine végétale
Densité : 1,2
Totalement biodégradable
Sans allergènes
Sans phosphates
Sans substances toxiques
Conforme à l'Arrêté du 08.09.1999 relatif au nettoyage du matériel pouvant se trouver au contact de denrées alimentaires.

PROPRIETES :

Formulé à partir d'une base alcaline forte, de tensioactifs spécifiques d'origine végétale, la synergie de l'ensemble donne au produit un grand pouvoir dégraissant, un effet séchant et déperlant très important pour éviter l'effet de gouttes. Laisse un parfait état de surface après rinçage à l'eau.

MODE D'EMPLOI :

Généralement par doseur électronique de 3 à 5 % en fonction des salissures et du TH de l'eau.
Le rinçage s'effectue à l'eau.
Utiliser une température comprise entre 50 et 80°C.

APPLICATIONS :

Pour le lavage automatique des fours cuissons vapeur

RECOMMANDATIONS :

Consulter la fiche de données de sécurité avant emploi.
Déconseillé sur certaines peintures, aluminium, galvanisé et en général sur tous les métaux doux.

GARANTIE : NE CONTROLANT PAS LES APPLICATIONS, IL IMPORTE A L'UTILISATEUR DE S'ASSURER, PAR DES ESSAIS, QUE LE PRODUIT CONVIENT BIEN A L'USAGE AUQUEL IL LE DESTINE.
NOTRE GARANTIE NE SAURAIT EXCEDER LE REMPLACEMENT D'UN PRODUIT RECONNU DEFECTUEUX.

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ECO-UNIPRO

FICHE DE DONNEES DE SECURITE

1 IDENTIFICATION DE LA PREPARATION ET DE LA SOCIETE

Identification de la substance ou de la préparation :
Nom : LM 950 ECO **ECO-UNIPRO** Code du produit : N2423

Identification de la société/entreprise :

Fournisseur : **HOBART**

Hobart House,
51 The Bourne,
Southgate,
London
N14 6RT
www.hobartuk.com

Société : INRS / ORFILA http : /www.centres-antipoison.net

Utilisation de la substance / préparation :
DEGRAISSANT FOUR

2 IDENTIFICATION DES DANGERS

Ce produit n'est pas classé comme inflammable.
Voir les préconisations concernant les autres produits présents dans le local.
Risque d'effets corrosifs graves.

R35	**Provoque de GRAVES BRÛLURES**

3 COMPOSITION ET INFORMATIONS SUR LES COMPOSANTS

Libellés des phrases R figurant au paragraphe 3 : voir paragraphe 16.

Substances Dangereuses représentatives
(présente dans la préparation à une concentration suffisante pour lui imposer les caractères toxicologiques qu'elle aurait à l'état pur à 100%).

INDEX	CAS	CE	Nom	Symb.	R :	%
011-002-00-6	1310-73-2	215-185-5	HYDROXYDE DE SODIUM	C	C; R35	10 <= x % < 25
019-002-00-8	1310-58-3	215-181-3	HYDROXYDE DE POTASSIUM	C	C; R35 Xn; R22	10 <= x % < 25
Autres substances apportant un danger :						
Aucune substance connue de cette catégorie n'est présente						
Substances présentes à une concentration inférieure au seuil minimal de danger						
Aucune substance connue de cette catégorie n'est présente						
Autres substances ayant des Valeurs Limites d'Exposition professionnelle :						
Aucune substance connue de cette catégorie n'est présente						

4 PREMIERS SECOURS

D'une manière générale, en cas de doute ou si des symptômes persistent, toujours faire appel à un médecin.
NE JAMAIS rien faire ingérer à une personne inconsciente.
Lors d'accidents aigus, demander, dans tous les cas, l'avis d'un médecin en précisant le pH de la solution, si possible. Les risques sont particulièrement graves lorsque le pH est inférieur à 1.5 ou supérieur à 11.5.

En cas d'exposition par inhalation :

En cas d'inhalation transporter le patient à l'aire libre et le garder au chaud et au repos.
Si la respiration est irrégulière ou arrêtée, pratiquer la respiration artificielle et faire appel à un médecin.
Si la personne est inconsciente, placer en position latérale de sécurité et appeler une ambulance médicalisée.

En cas de projection ou de contact avec les yeux :

Laver abondamment avec de l'eau douce et propre durant 15 minutes en maintenant les paupières écartées.
S'il apparaît une douleur, une rougeur ou une gêne visuelle, consulter un ophtalmologiste.

En cas de projection ou de contact avec la peau :

Enlever immédiatement tout vêtement souillé ou éclaboussé, ceux-ci ne seront pas réutilisés avec d'être décontaminés.
Laver soigneusement la peau avec de l'eau et du savon ou utiliser un nettoyant connu.
NE PAS utiliser des solvants ou des diluants.
Lorsque la zone contaminée est étendue et/ou s'il apparaît des lésions cutanées, il est nécessaire de consulter un médecin ou de faire transférer en milieu hospitalier

En cas d'ingestion :

En cas d'ingestion accidentelle, ne pas faire boire, ne pas faire vomir mais faire transférer immédiatement en milieu hospitalier par ambulance médicalisée. Montrer l'étiquette au médecin.
En cas d'ingestion de solutions concentrées, NE PAS FAIRE boire et NE PAS FAIRE vomir. En cas d'ingestion de solution diluée, en très faibles quantités, faire boire un ou deux verres d'eau. S'il apparaît des douleurs rétro sternales et abdominales, des nausées et des vomissements, consulter le médecin.

5 MESURES DE LUTTE CONTRE L'INCENDIE

Non concerné**.**

Moyen d'extinction approprié :

Refroidir les récipients exposés au feu par pulvérisation d'eau.
Les agents d'extinction préconisés sont le dioxyde de carbone, les poudres et mousses chimiques.

Moyen d'extinction à ne pas utiliser pour des raisons de sécurité :

Eviter de pulvériser l'eau directement sur les bacs de stockage afin d'éviter tout débordement du produit.
Empêcher les effluents de la lutte contre le feu de pénétrer dans les égouts ou les cours d'eau.
Déconseillé : eau abondante en jet.

Risque particulier résultant de l'exposition à la substance en tant que telle, aux produits de la combustion, aux gaz produits :

Ne pas respirer les fumées.
Ininflammable et inexplosible, cependant réagit aux métaux avec dégagement d'hydrogène, produit hautement inflammable.

6 MESURES A PRENDRE EN CAS DE REJET ACCIDENTEL

Précautions individuelles :

Eviter tout contact avec la peau et les yeux.
Se référer aux mesures de protection énumérées dans les rubriques 7 et 8.

Précautions pour la protection de l'environnement :

Contenir et recueillir les fuites avec des matériaux absorbants non combustibles, par exemple : sable, terre, vermiculite, terre de diatomées dans des fûts en vue de l'élimination des déchets.
Empêcher toute pénétration dans les égouts ou cours d'eau.
Placer des fûts en vue de l'élimination de déchets récupérés selon les réglementations en vigueur (voir rubrique 13)
Si le produit contamine des nappes d'eau, rivières ou égouts, alerter les autorités compétentes selon les procédures réglementaires.

Méthodes de nettoyage :

Neutraliser avec un décontaminant acide.
En cas de souillure du sol, et après récupération du produit en l'épongeant avec un matériau absorbant inerte et non combustible, laver à grande eau la surface qui est souillée.
Si le déversement est important, évacuer le personnel en ne faisant intervenir que des opérateurs entraînés munis d'un équipement de protection.
Nettoyer de préférence avec un détergent, éviter l'utilisation de solvants.

7 MANIPULATION ET STOCKAGE

Les prescriptions relatives aux locaux de stockage sont applicables aux ateliers où est manipulé le produit.

Manipulation :

Maintenir les locaux et postes de travail en parfaite état de propreté.
En cas de dilution, ajouter le produits dans l'eau JAMAIS l'inverse (risque de projection).

Prévention des incendies :

Interdire l'accès aux personnes non autorisées.
Ne pas fumer.

Equipements et procédures recommandés :

Pour la protection individuelle, voir le paragraphe 8.
Observer les précautions indiquées sur l'étiquette ainsi que les réglementations de la protection du travail.
Eviter impérativement le contact du produit avec la peau et les yeux.
Prévoir des douches de sécurité et des fontaines oculaires dans les ateliers où le produit est manipulé de façon constante.
Les emballages entamés doivent être refermés soigneusement et conservés, de préférence, en position verticale.

Equipements et procédures interdits :

Il est interdit de fumer, manger, boire dans les locaux où la préparation est utilisée.
Ne jamais ouvrir les emballages par pression.
Il est recommandé de ne pas porter de verres de contact.

Stockage :

Conserver le récipient bien fermé et dans un endroit sec.
Conserver dans son emballage d'origine.
Ne pas stocker dans des récipients en acier non protégé.
Le sol des locaux sera imperméable et formera une cuvette de rétention afin qu'en cas de dispersion accidentelle, le liquide ne puisse se répandre en dehors.
Stocker dans des récipients en matières plastiques (polychlorure de vinyle ou polyéthylène).

8 CONTRÔLE DE L'EXPOSITION / PROTECTION INDIVIDUELLE

Utiliser des équipements de protection individuelle selon la Directive 89/686/CEE.

Valeurs limites d'exposition selon INRS ED 984 et Arrêté français du 30/06/04 :						
France	VME-ppm	VME-mg/m3	VLE-ppm	VLE-mg/m3	Notes	TMP N°
1310-58-3	-	-	-	2	-	-
1310-73-2	-	2	-	-	-	-
Valeurs limites d'exposition (2003-2006)						
UK/WELs	TWA	STEL	Ceiling	Définition	Critères	
1310-58-3	-	2 mg/m3	-	-	-	
1310-73-2	-	2 mg/m3	-	-	-	

Protection respiratoire :

Lorsque les travailleurs sont confrontés avec des concentrations supérieures aux limites d'exposition, ils doivent porter des masques appropriés et agréés (à cartouches avec filtre P).

Protections des mains :

Des crèmes protectrices peuvent être utilisées pour des parties exposées de la peau, elles ne devraient toutefois pas être appliquées après contact avec le produit.

En cas de risque de contact avec les mains, utiliser impérativement des gants appropriés.

Type de gants conseillé : Porter des gants en caoutchouc nitrile, néoprène ou PVC.

Protection des yeux et du visage :

Eviter le contact avec la peau et les yeux.

Mettre à la disposition du personnel des gants des écrans faciaux et des lunettes de sécurité.

Prévoir des fontaines oculaires dans les ateliers où le produit est manipulé de façon constante.

Protection de la peau :

Porter des vêtements de protection appropriés et en particulier une combinaison et des bottes. Ces effets seront maintenus en bon état et nettoyés après usage.

Pour plus de détails voir paragraphe 11 de la FDS – informations toxicologiques.

9 PROPRIETES PHYSIQUES ET CHIMIQUES

Informations générales :	
Etat physique	Liquide Fluide
Informations importantes relatives à la santé, à la sécurité et à l'environnement :	
pH de la substance / préparation	Base forte
Quand la mesure du pH est possible, sa valeur est	Non précisée
Point / intervalle d'ébullition :	Non précisé
Intervalle de Point Eclair	Non concerné
Pression de vapeur	Non concerné
Densité	> 1
Hydro solubilité	Soluble
Autres informations :	
Point / intervalle de fusion	Non précisé
Température d'auto-inflammation	Non précisé
Point / intervalle de décomposition	Non précisé

10 STABILITÉ ET RÉACTIVITÉ

La préparation est stable aux conditions de manipulation et de stockage recommandées sous la rubrique paragraphe 7 de la FDS.

Matières à éviter :

Réactions très vives avec : acide acétique, acroléine, acrylonitrile, trichlorure d'azote et dioxyde de chlore. Avec le 1 ,2-dichloroéthylène, le trichloréthylène et le tétrachloroéthylène, il se forme du monoacétylène et du dichloroacétylène, composés qui explosent facilement.

Produits dangereux :

A hautes températures et par corrosion des métaux, possibilité de formation d'hydrogène inflammable et explosive.

11 INFORMATIONS TOXICOLOGIQUES

Aucune donnée sur la préparation elle-même n'est disponible.
Des substances contenues laissent conventionnellement prévoir qu'une application sur la peau saine et intacte d'un animal provoque des destructions tissulaires en moins de trois minutes.

En cas d'exposition par inhalation :

Irritation intense des muqueuses oculaires et respiratoires : hyperhémie conjonctivales, larmoiement, douleur oculaire et rétrosternales, toux et dyspnée. Il faut craindre la survenue d'un œdème pulmonaire lésionnel.

En cas d'ingestion :

Douleurs buccales, rétrosternales et épigastriques. Les vomissements sont fréquents et sanglants. Brûlures sévères de la cavité bucco-pharyngée.

En cas de projections ou de contact avec la peau :

Les projections de solutions concentrées sont responsables de lésions caustiques sévères si une décontamination n'est pas rapidement réalisée.
La guérison est lente avec parfois des cicatrices rétractiles.

En cas de projections ou de contact avec les yeux :

Les projections de solutions concentrées sont responsables de lésions caustiques sévères, si une décontamination n'est pas rapidement réalisée. En cas d'atteinte, des séquelles invalidantes sont possibles : opacités cornéennes, cataracte, glaucome…
Possibilité d'atteinte de tous les tissus de l'œil avec risque de cécité.

12 INFORMATIONS ÉCOLOGIQUES

Aucune donnée écologique sur la préparation elle-même n'est disponible.
Tout écoulement du produit dans les égouts ou les cours d'eau doit être évité.

Écotoxicité :

Pour l'Hydroxyde de Potassium en solution à 50% - POISSON – CL50 (24 h) = 80 mg/l, DAPHNIES – CL50 (24 h) = 270mg/l.
Pour l'hydroxyde de sodium POISSONS – CL50 (96 h) = 125 mg/l, DAPHNIES – CE50 (48 h) = 40mg/l. Nocif pour les organismes aquatiques en raison du pH alcalin.
Le produit dilué est rapidement neutralisé.

13 CONSIDERATIONS RELATIVES A L'ELIMINATION

Ne pas déverser dans les égouts ni dans les cours d'eau.

Déchets :

Recycler ou éliminer conformément aux législations en vigueur, de préférence par un collecteur ou une entreprise agréée.
Ne pas contaminer le sol ou l'eau avec des déchets, ne pas procéder à leur élimination dans l'environnement.

Emballages souillés :

Vider complètement le récipient. Conserver la(les) étiquettes sur le récipient.
Remettre à un éliminateur agréé.

Dispositions locales :
La réglementation relative aux déchets est codifiée dans le CODE DE L'ENVIRONNEMENT, selon l'Ordonnance n° 2000-914 du 18 septembre 2000 relative à la partie Législative du code de l'environnement. On retrouve les différents textes de l'Article L.541-1 à l'Article L.541-50 se trouvant au Livre V (Prévention des pollutions, des risques et des nuisances), Titre IV (Déchets), Chapitre I (Elimination des déchets et récupération des matériaux).

14 INFORMATIONS RELATIVES AUX TRANSPORTS

Transporter le produit conformément aux disposition de l'ADR pour la route, du RID pour le rail, de l'IMDG pour la mer, et de l'ICAO/IATA pour le transport par air (ADR 2007 – IMDG 2006 – ICAO/IATA 2007).
UN3266 = LIQUIDE INORGANIQUE CORROSIF, BASIQUE, N.S.A.
(Hydroxyde de potassium, hydroxyde de sodium)

ADR/RID	Classe	Code	Groupe	Etiquette	Ident.	QL	Dispo.
	8	C5	II	8	80	LQ22	274

IMDG	Classe	2° Etiq.	Groupe	QL	FS	Dispo.			
	8	-	II	1 L	F-A,S-B	274 944			
IATA	Classe	2° Etiq.	Groupe	Passager	Passager	Cargo	Cargo	note	
	8	-	II	808	1 L	812	30 L	A3	
	8	-	II	Y808	0.5 L	-	-	-	

15 INFORMATIONS REGLEMENTAIRES

La classification de cette préparation a été exécutée conformément à la directive dite <Toutes Préparations> 1999/45/CE et de ses adaptations.
A aussi été pris en compte la directive 2004/73/CE portant 29ème adaptation à la directive 67/548/CEE (Substances dangereuses).
Ce produit n'est pas classé comme inflammable.

Classement de la Préparation :

Contient du :

215-185-5	HYDROXYDE DE SODIUM
215-181-3	HYDROXYDE DE POTASSIUM

Risques particuliers attribués à la préparation et conseils de prudence:

R 35	Provoque de graves brûlures
S 26	En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.
S 36/37/39	Porter un vêtement de protection approprié, des gants et un appareil de protection des yeux/du visage.
S 45	En cas d'accident ou de malaise, consulter immédiatement un médecin (si possible lui montrer l'étiquette).
S 60	Éliminer le produit et son récipient comme un déchet dangereux

16 AUTRES DONNÉES

Les conditions de travail de l'utilisateur ne nous étant pas connues, les informations données dans la présente fiche de sécurité sont basées sur l'état de nos connaissances et sur les réglementations tant nationales que communautaires.

Le produit ne doit pas être utilisé à d'autres usages que ceux spécifiés en rubrique 1 sans avoir obtenu au préalable des instructions de manipulation écrites. Il est toujours de la responsabilité de l'utilisateur de prendre toutes les mesures nécessaires pour répondre aux exigences des lois et réglementations locales.
Les informations données dans la présente fiche doivent être considérées comme une description des exigences de sécurité relatives à notre produit et non pas comme une garantie des propriétés de celui-ci.
Cette fiche complète les notices techniques d'utilisation mais ne les remplace pas. Les renseignements qu'elle contient sont basés sur l'état de nos connaissances relatives au produit concerné, à la date indiquée. Ils sont donnés de bonne foi.

L'attention des utilisateurs est en outre attirée sur les risques éventuellement encourus lorsqu'un produit est utilisé à d'autres usages que ceux pour lesquels il est conçu. Elle ne dispense en aucun cas l'utilisateur de connaître et d'appliquer l'ensemble des textes réglementant son activité. Il prendra sous sa seule responsabilité les précautions liées à l'utilisation qu'il fait du produit.

L'ensemble des prescriptions réglementaires mentionnées a simplement pour but d'aider le destinataire à remplir les obligations qui lui incombent lors de l'utilisation du produit dangereux. Cette énumération ne doit pas être considérée comme exhaustive et n'exonère pas le destinataire de s'assurer qu'éventuellement d'autres obligations ne lui incombent en raison des textes autres que ceux cités concernant la détention et la manipulation du produit pour lesquelles il est seul responsable.

Libellés des phrases R figurant au paragraphe 3:

R 22	Nocif en cas d'ingestion.
R 35	Provoque de graves brûlures.

Etiquetage du contenu (Règlement CE n°648/2004 - 907/2006):
- moins de 5% de : agents de surface non ioniques

DESCALE-PRO

LIQUIDE DETARTRANT ACIDE

CARACTERISTIQUES :

Aspect : Liquide translucide
pH : 2
Densité : 1,2
Biodégradabilité > à 90 %
5 mn < TPS contact < 15 mn
Température jusqu'à 60°C
Conforme à l'Arrêté du 08.09.1999 relatif au nettoyage du matériel pouvant se trouver au contact de denrées alimentaires.

PROPRIETES :

Ses constituants tensioactifs accroissent son acidité,
Facilite le dégraissage et le détartrage
Il redonne l'éclat du neuf.
Son acidité lui procure une activité désinfectante.
Conforme au normes NF EN 1040 (1%) et NF EN 1276 (1%)

MODE D'EMPLOI :

Injecter directement le produit dans l'eau de rinçage à l'aide des doseurs automatiques.
Dose d'emploi *:* de 50 à 200g/l d'eau chaude

APPLICATIONS :

Sur tous types de machines possédant un doseur spécifique :
Machine à laver, vaisselle, verrerie, autoclaves, cafetières, théières, marmites, percolateurs, stérilisateurs
Surchauffeurs, fontaines, matériel sanitaire, chaudière de fours vapeurs …
Ne pas utiliser sur de l'aluminium ou alliages légers

RECOMMANDATIONS :

Consulter la fiche de données de sécurité avant emploi

GARANTIE : NE CONTROLANT PAS LES APPLICATIONS, IL IMPORTE A L'UTILISATEUR DE S'ASSURER, PAR DES ESSAIS, QUE LE PRODUIT CONVIENT BIEN A L'USAGE AUQUEL IL LE DESTINE.
NOTRE GARANTIE NE SAURAIT EXCEDER LE REMPLACEMENT D'UN PRODUIT RECONNU DEFECTUEUX.

DESCALE-PRO

FICHE DE DONNEES DE SECURITE

1 IDENTIFICATION

Identification de la substance ou de la préparation :
Nom : **DETART DESCALE-PRO** Code du produit : IMP 114

Identification de la société/entreprise :

Fournisseur : **HOBART**

Hobart House,
51 The Bourne,
Southgate,
London
N14 6RT
www.hobartuk.com

Société : INRS / ORFILA http : /www.centres-antipoison.net

Utilisation de la substance / préparation :
DETERGENCE EN MILIEU ALIMENTAIRE

2 IDENTIFICATION DES DANGERS

Ce produit n'est pas classé comme inflammable. Voir les préconisations concernant les autres produits présents dans le local.
Risque d'effets corrosifs graves.

Autres données :
La classification corrosive est fondée sur une même valeur extrême de pH (selon la Directive 2001/59/CE, annexe VI, paragraphe 3.2.5).

Classement de la Préparation :

Provoque de graves brûlures.

3 COMPOSITION ET INFORMATIONS SUR LES COMPOSANTS

Libellés des phrases R figurant au paragraphe 3 : voir paragraphe 16.

Substances Dangereuses représentatives
(présente dans la préparation à une concentration suffisante pour lui imposer les caractères toxicologiques qu'elle aurait à l'état pur à 100%.

INDEX	CAS	CE	Nom	Symb.	R :	%
007-004-00-1	7697-37-2	231-714-2	ACIDE NITRIQUE …%	**C O**	C ; R35 O. R8	10 <= x % < 25
Autres substances apportant un danger :						
015-011-00-6	7664-38-2	231-633-2	ACIDE PHOSPHORIQUE …%	**C**	C ; R34	10 <= x % < 25
Autres substances présentes à une concentration inférieure au seuil minimal de danger : :						
Aucune substance connue de cette catégorie n'est présente.						
Autres substances présentes ayant des Valeurs Limites d'Exposition professionnelle :						
Aucune substance connue de cette catégorie n'est présente.						

4 PREMIERS SECOURS

D'une manière générale, en cas de doute ou si des symptômes persistent, toujours faire appel à un médecin.
NE JAMAIS rien faire ingérer à une personne inconsciente.

En cas d'exposition par inhalation :

(inhalation de brouillard).
Amener le sujet à l'air libre. Oxygène ou respiration artificielle si nécessaire. Mettre sous surveillance médicale. Hospitaliser en cas de troubles.

En cas de projection ou de contact avec les yeux :

Laver abondamment avec de l'eau douce et propre durant 15 minutes en maintenant les paupières écartées.
S'il apparaît une douleur, une rougeur ou une gêne visuelle, consulter un ophtalmologiste.

En cas de projection ou de contact avec la peau :

Enlever immédiatement tout vêtement souillé ou éclaboussé ; ceux-ci ne seront pas réutilisés avant d'être décontaminés. Laver soigneusement la peau avec de l'eau et du savon ou utiliser un nettoyant connu.
NE PAS UTILISER des solvants ou des diluants.
Lorsque la zone contaminée est étendue et/ou s'il apparait des lésions cutanées, il est nécessaire de consulter un médecin ou de faire transférer en milieu hospitalier.

En cas d'ingestion :

En cas d'ingestion accidentelle, NE PAS FAIRE boire et NE PAS FAIRE vomir mais faire transférer immédiatement en milieu hospitalier par ambulance médicalisée. Montrer l'étiquette au médecin.
Rincer abondamment la bouche et les lèvres à l'eau si le sujet est conscient.

Traitement spécifique et immédiat :

En cas de projection dans les yeux et sur la peau, traiter les YEUX EN PRIORITE.

5 MESURES DE LUTTE CONTRE L'INCENDIE

Moyen d'extinction approprié :
Eau pulvérisée.

Equipement de protection spécial pour le personnel préposé à la lutte contre le feu :
Porter un appareil respiratoire autonome et des vêtements de protection.

Risque particulier résultant de l'exposition à la substance en tant que telle, aux produits de la combustion, aux gaz produits :
Refroidir les récipients par pulvérisation d'eau.
A haute température : par corrosion des métaux, formation d'hydrogène inflammable et explosible.

6 MESURES A PRENDRE EN CAS DE REJET ACCIDENTEL

Précautions individuelles :

Eviter tout contact avec la peau et les yeux.
Se référer aux mesures de protection énumérées dans les rubriques 7 et 8.

Précautions pour la protection de l'environnement :
Contenir et recueillir les fuites avec des matériaux absorbants non combustibles, par exemple : sable, terre, vermiculite, terre de diatomées dans des fûts en vue de l'élimination des déchets.
Placer des futs en vue de l'élimination de déchets récupérés selon les réglementations en vigueur (voir rubrique 13).

Méthodes de nettoyage :

Neutraliser avec un décontaminant basique, par exemple solution aqueuse de carbonate de sodium, ou autre.
En cas de souillure du sol, et après récupération du produit en l'épongeant avec un matériau absorbant inerte et non combustible, laver à grande eau la surface qui a été souillée.
Si le déversement est important, évacuer le personnel en ne faisant intervenir que des opérateurs entraînés munis d'un équipement de protection.
Attention : la neutralisation est exothermique

7 MANIPULATION ET STOCKAGE

Les prescriptions relatives aux locaux de stockage sont applicables aux ateliers où est manipulé le produit.

Manipulation :

Consignes de manipulation et de stockage applicables aux produits CORROSIFS.
Prévoir une ventilation et une évacuation appropriée au niveau des équipements. Manipuler en évitant les projections.

Prévention des incendies :

Interdire l'accès aux personnes non autorisées.

Equipements et procédures recommandés :

Pour la protection individuelle, voir paragraphe 8.
Observer les précautions indiquées sur l'étiquette ainsi que les réglementations de la protection du travail.
Eviter impérativement le contact du produit avec la peau et les yeux.
Prévoir des douches de sécurité et des fontaines oculaires dans les ateliers où le produit est manipulé de façon constante.

Equipements et procédures interdits :

Il est interdit de fumer, manger et boire dans les locaux où la préparation est utilisée.
Ne jamais ouvrir les emballages par pression.

Stockage :

Conserver le récipient bien fermé et dans un endroit sec

8 CONTRÔLE DE L'EXPOSITION / PROTECTION INDIVIDUELLE

Utiliser des équipements de protection individuelle selon la Directive 89/686/CEE

Mesure d'ordre technique :
Prévoir un renouvellement d'air et / ou une aspiration suffisante.

Valeurs limites d'exposition selon INRS ED 984 et Arrêté Français du 30/06/04 :						
France	VME-ppm	VME-mg/m3	VLE-ppm	VLE-mg/m3	Notes	TMP N°
7664-38-2 7697-37-2	0.2 2	1 5	0.5 4	2 10	- -	- -
Valeurs limites d'exposition (2003-2006)						
Allemagne/AGW	VME	VME	Dépassement	Remarques		
7697-37-2	2 ml/m3	5.2 mg/m3	1 (I)	DFG.		

Protection respiratoire :
Prohiber l'inhalation de brouillard

Protection des mains :
Des crèmes protectrices peuvent être utilisées pour des parties exposées de la peau, elles ne devraient toutefois pas être appliquées après contact avec le produit.
En cas de risque de contact avec les mains utiliser impérativement des gants appropriés.

Protection des yeux et du visage :
Eviter le contact avec la peau et les yeux.
Mettre à la disposition du personnel des gants des écrans faciaux et des lunettes de sécurité.
Prévoir des fontaines oculaires dans les ateliers où le produit est manipulé de façon constante.

Protection de la peau :
Porter des vêtements de protection appropriés et en particulier une combinaison et des bottes. Ces effets seront maintenus en bon état et nettoyés après usage.
Pour plus de détails voir paragraphe 11 de la FDS – Informations toxicologiques.

9 PROPRIETES PHYSIQUES ET CHIMIQUES

Informations générales :	
Etat physique	Liquide Fluide
Informations importantes relatives à la santé, à la sécurité et à l'environnement :	
pH de la substance / préparation	Acide fort
Quand la mesure du pH est possible, sa valeur est	Non précisée
PH en solution aqueuse :	1,5 à 1%
Point / intervalle d'ébullition :	Non précisé
Intervalle de Point Eclair	Non concerné
Pression de vapeur	Non concerné
Densité	> 1
Densité relative	1,20
Hydrosolubilité	Soluble
Autres informations :	
Point / intervalle de fusion	Non précisé
Température d'auto-inflammation	Non concerné
Point / intervalle de décomposition	Non précisé
Couleur :	Incolore

10 TABILITÉ ET RÉACTIVITÉ

La préparation est stable aux conditions de manipulation et de stockage recommandées sous la rubrique paragraphe 7 de la FDS.

Conditions à éviter :
Température inférieure à 5°C ou supérieure à 40°C

Matières à éviter :
Réaction aux alcalis et aux métaux

Produits de décomposition dangereux :
A haute température par corrosion des métaux, formation d'hydrogène inflammable et explosible.

11 INFORMATIONS TOXICOLOGIQUES

Des substances contenues laissent conventionnellement prévoir qu'une application sur la peau saine et intacte d'un animal provoque des destructions tissulaires en moins de trois minutes.

En cas d'exposition par inhalation :

Corrosif pour les voies respiratoires.

En cas d'ingestion :

Brûlure douloureuse de la bouche, de la gorge, de l'œsophage et de l'estomac. Nausées, vomissements noirâtres, crampes abdominales, diarrhée. Risque d'œdème de la gorge avec étouffement. Risque d'état de choc (pâleur du visage, tendance à la syncope, pouls faible et irrégulier). Après quelques jours, risque d'aggravation de l'état général et risque de perforation abdominale.

En cas de projections ou de contact avec la peau :

Très corrosif pour la peau. Provoque de graves brûlures. Guérison lente. Cicatrices parfois rétractiles. La peau est savonneuse au toucher. Irritation intense, rougeur, gonflement de la peau. Ulcérations profondes, difficiles à guérir. Risque d'état de choc (pâleur du visage, tendance à la syncope, pouls faible et irrégulier) en cas de projection importante. Lors de contacts prolongés ou répétés : petites ulcérations, risque de dermatose.

En cas de projections ou de contact avec les yeux :

Brûlures graves de la conjonctive et de la cornée. Peut provoquer des lésions oculaires irréversibles.

12 INFORMATIONS ÉCOLOGIQUES

Persistance et dégradabilité : Biodégradabilité des tensio-actifs supérieure à 90% conformément à la législation en vigueur.

13 CONSIDERATIONS RELATIVES A L'ELIMINATION

Déchets :

Recycler ou éliminer conformément aux législations en vigueur, de préférence par un collecteur ou une entreprise agréée.

Emballages souillés :

Vider complètement le récipient. Conserver la(les) étiquettes sur le récipient.
Remettre à un éliminateur agréé.
Réutiliser les emballages vides est fortement déconseillé.

Dispositions locales :

La réglementation relative aux déchets est codifiée dans le CODE DE L'ENVIRONNEMENT, selon l'Ordonnance n° 2000-914 du 18 septembre 2000 relative à la partie Législative du code de l'environnement. On retrouve les différents textes de l'Article L.541-1 à l'Article L.541-50 se trouvant au Livre V (Prévention des pollutions, des risques et des nuisances), Titre IV (Déchets), Chapitre I (Elimination des déchets et récupération des matériaux).

14 INFORMATIONS RELATIVES AUX TRANSPORTS

Transporter le produit conformément aux disposition de l'ADR pour la route, du RID pour le rail, de l'IMDG pour la mer, et de l'ICAO/IATA pour le transport par air (ADR 2007 – IMDG 2006 – ICAO/IATA 2007).
UN3264=LIQUIDE INORGANIQUE CORROSIF, ACIDE, N.S.A.
(acide nitrique …%).

ADR/RID	Classe	Code	Groupe	Etiquette	Ident.	QL	Dispo.
	8	CI	III	8	80	LQ7	274

IMDG	Classe	2° Etiq.	Groupe	QL	FS	Dispo.		
	8	-	III	5 L	F-A,S-B	223 274 944		
IATA	Classe	2° Etiq.	Groupe	Passager	Passager	Cargo	Cargo	note
	8	-	III	818	5 L	820	60 L	A3
	8	-	III	Y818	1 L	-	-	-

15 INFORMATIONS REGLEMENTAIRES

La classification de cette préparation a été exécutée conformément à la directive dite <Toutes Préparations> 1999/45/CE et de ses adaptations.
A aussi été pris en compte la directive 2004/73/CE portant 29ème adaptation à la directive 67/548/CEE (Substances dangereuses).
Ce produit n'est pas classé comme inflammable.

Classement de la préparation :

Corrosif

Contient :

007-004-00-1	ACIDE NITRIQUE
015-011-00-6	ACIDE PHOSPHORIQUE

Risques particuliers attribués à la préparation et conseils de prudence :

R 35	Provoque de graves brûlures
S 26	En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.
S 36/37/39	Porter un vêtement de protection approprié, des gants et un appareil de protection des yeux/du visage.
S 45	En cas d'accident ou de malaise, consulter immédiatement un médecin (si possible lui montrer l'étiquette).
S 23	Ne pas respirer les gaz/fumées/vapeurs/aérosols (terme(s) approprié(s) à indiquer par le fabricant)

Dispositions particulières :
La classification corrosive est fondée sur une valeur extrême de pH (selon la Directive 2001/59/CE, annexe VI, paragraphe 3.2.5).
Nomenclature des installations classées. (France) (Pour Quantité lire Quantité totale présente dans l'installation).
Acide Phosphorique (Emploi, stockage de l') : N°1611 – en (Quantité >= 250 t) => Régime A et Rayon d'affichage de 1 km / en (Quantité >= 50 t) mais (Quantité < 250t) => Régime D.

ALIMENTARITE : Arrêté du 08/09/99 relatif aux substances autorisées pour le nettoyage des matériaux et objets destinés à être mis au contact des denrées alimentaires.

Tableau des maladies professionnelles selon le Code du travail :

Tableau N°34 - Affections provoquées par les phosphates, pyrophosphates et thiophosphates d'alcoyle, d'aryle ou d'alcoylaryle et autres organophosphorés anticholinestérasiques ainsi que par les phosphoramides et carbamates hétérocycliques anticholinestérasiques.
Surveillance médicale spéciale selon l'arrêté du 11 juillet 1977 pour le phosphore et ses composés.

16 AUTRES DONNÉES

Les conditions de travail de l'utilisateur ne nous étant pas connues, les informations données dans la présente fiche de sécurité sont basées sur l'état de nos connaissances et sur les réglementations tant nationales que communautaires.

Le produit ne doit pas être utilisé à d'autres usages que ceux spécifiés en rubrique 1 sans avoir obtenu au préalable des instructions de manipulation écrites.

Il est toujours de la responsabilité de l'utilisateur de prendre toutes les mesures nécessaires pour répondre aux exigences des lois et réglementations locales.
Les informations données dans la présente fiche doivent être considérées comme une description des exigences de sécurité relatives à notre produit et non pas comme une garantie des propriétés de celui-ci.
Ce document s'applique au produit EN L'ETAT, conforma aux spécifications fournies par SANTOR SAS.

SANTOR SAS : tel : 01.39.33.24.60
Fax : 01.39.33.24.61
info@santor.fr
Les renseignements contenus dans cette fiche sont donnés de bonne foi et basés sur nos dernières connaissances relatives au produit concerné, à la date d'édition.

L'attention des utilisateurs est attirée sur les risques éventuellement encourus lorsqu'un produit est utilisé à d'autres usages que ceux pour lesquels il est destiné.

En cas de combinaisons ou de mélanges, s'assurer qu'aucun danger nouveau ne puisse apparaître.

Il appartient au destinataire du produit de se reporter à l'ensemble des textes officiels concernant l'utilisation, la détention et la manipulation du produit pour lesquelles il est seul responsable.

L'utilisateur du produit doit également porter à la connaissance des personnes qui peuvent entrer en contact avec le produit (emploi, stockage, interventions diverses) toutes les informations nécessaires de sécurité du travail, à la protection de la santé et de l'environnement, en leur transmettant cette fiche de données de sécurité.

Cette fiche ne doit être utilisée et reproduite qu'à des fins de prévention et de sécurité.

Libellés des phrases R figurant au paragraphe 3:

R 34	Provoque des brûlures.
R 35	Provoque de graves brûlures
R 8	Favorise l'inflammation des matières combustibles.

ECO-UNIPRO

ECOLOGICAL LIQUID DETERGENT FOR THE AUTOMATIC WASHING OF THE OVEN OF COOKING VAPOR

CHARACTERISTICS :

100% ecological
Liquid color straw.
pH: alkaline
Miscible in water in any proportion.
Containing surface-active of vegetable origin
Density: 1.2
Completely biodegradable
Without allergens
Without phosphates
Without toxic substances
Conform to the Decree of the 08.09.1999 relating one to the cleaning of the material which can be in contact with foodstuffs.

PROPERTIES :

Formulated starting from a strong alkaline base, the surface-active specific ones of vegetable origin, the synergy of the unit gives to the product a great grease-removing power, a very important effect drying and déperlant to avoid the effect of drops. Leave a perfect surface quality after rinsing to water..

DIRECTIONS FOR USE:

Generally by electronic batcher from 3 to 5% according to the stains and the TH of water.
The rinsing is carried out with water.
To use a temperature ranging between 50 and 80°C.

APPLICATIONS :

For the automatic washing of the furnaces cookings vapor

RECOMMENDATIONS :

To consult the card of data of safety before employment.
Disadvised on certain paintings, aluminum, galvanized and in general on all soft metals.

GUARANTEE: NOT CONTROLLING THE APPLICATIONS, IT IS IMPORTANT WITH THE USER TO MAKE SURE, BY TESTS, THAT THE PRODUCT IS APPROPRIATE WELL WITH USE FOR WHICH HE INTENDS IT.
OUR GUARANTEE COULD NOT EXCEED THE REPLACEMENT OF A PRODUCT FOUND DEFECTIVE.

ECO-UNIPRO

SAFETY DATE SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Identification of the substance or preparation :
Name : **LM 950 ECO** **ECO-UNIPRO** Product Code : N2423

Company/undertaking identification : :

Supplier : **HOBART**

Hobart House,
51 The Bourne,
Southgate,
London
N14 6RT
www.hobartuk.com

Company : INRS / ORFILA http : /www.centres-antipoison.net

Use of the substance / preparation :
DETERGENT FOR FURNACE CLEANING

2 HAZARDS IDENTIFICATION

This product is not classed as flammable.
Refer to the recommendations regarding the other product present on the site.
Possibility of serious corrosive effects.

R35	**Causes severe burns**

3 COMPOSITION / INFORMATION ON INGREDIENTS

Full text of risk phrases appearing in section 3 : see section 16.

Hazardous Substances present on their own
(present in the preparation at a sufficient concentration to give it the toxicological characteristics it would have in a 100% pure state).

INDEX	CAS	CE	Name	Symb.	R :	%
011-002-00-6	1310-73-2	215-185-5	SODIUM HYDROXIDE	C	C; R35	10 <= x % < 25
019-002-00-8	1310-58-3	215-181-3	POTASSIUM HYDROXIDE	C	C; R35 Xn; R22	10 <= x % < 25
Other substances representing a hazard :						
No known substance in this category present						
Substances present at a concentration below the minimum danger threshold						
No known substance in this category present						
Other substances with occupational exposure limits :						
No known substance in this category present						

4 FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing in an unconscious person.
When acute accidents happen, to ask for, in all the cases, the opinion of a doctor by specifying the pH of the solution, if possible. The risks are particularly serious when the pH is lower than 1.5 or higher than 11.5.

In the event of exposure by inhalation :

In the event of inhalation, transport the patient to free air and keep it with heat and rest.
If breathing irregular or is stopped, to practise the artificial respiration and call upon a doctor.
If the person is unconscious, place it in the position of safety.

In the event of splashes or contact with eyes :

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Remove all contaminated or stained clothing immediately.
Do not use them again until they have been decontaminated. Wash the skin thoroughly with soap and water or a recognised cleaner.
Do NOT use solvents or thinners.
If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

If swallowed accidentally, do not allow to drink, do not induce vomiting and transfer to hospital immediately by ambulance. Show the label to the doctor.
In the event of ingestion of concentrated solutions, DON'T MAKE drink and DON'T MAKE vomit. In the event of ingestion of solution diluted, in very small quantities, to make drink one or two glasses of water. If it appears abdominal pains and, nauseas and vomiting, to consult a doctor.

5 FIRE-FIGHTING MEASURES

Not relevant**.**

Suitable extinguishing media :

Cool the containers exposed by fire.
The recommended agents of extinction are the carbon dioxide, the chemical powders and foams.

Extinguishing media which must not be used for safety reasons :

Avoid pulverizing water directly on the container of storage in order to avoid any overflow of the product.
Prevent the effluents to fire fighting from penetrating in the sewers and the rivers.
Not advised : abundant water.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases :

Don't breathe the fume.
Non flammable and non-exposable, however reacts to metals with hydrogen release, highly flammable product.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions :

Avoid any contact with the skin and eyes.
Consult the safety measures listed under headings 7 and 8.

Environmental precautions :

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
Prevent any material from entering drains or waterways.
Use drums to dispose of waste recovered in accordance with applicable regulations (see heading 13)
If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures.

Methods for cleaning up :

Neutralise with an acidic decontaminant.
If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.
If a large amount has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.
Clean preferably with a detergent, do not use solvents.

7 HANDLING AND STORAGE

The regulations relating to storage premises apply to workshops where the product is handled.

Handling :

Maintain buildings and working stations in a perfect state of cleanliness.
In the event of dilution, never add the product in water, do the reverse (risk of projection).

Fire prevention :

Prevent access by unauthorised personnel.
Don’t smoke.

Recommended equipment and procedures :

For personal safety, see § 8.
Observe precautions stated on label and also industrial safety regulations.
Product must not come into contact with the skin and eyes.
Provide safety showers and eyes washes in workshops where the product is handled constantly.
Started packing must be closed again carefully and preserved,, preferably, in driving position.

Prohibited equipment and procedures :

Smoking, eating and drinking are prohibited in premises where the preparation is used.
Never open the packages under pressure.
It is recommended not to carry contact lenses.

Storage :

Keep the container tightly closed in a dry place.
Keep in original packing.
Not to store in containers out of steel not protected.
The ground of the buildings will be impermeable and form a retention dike so that in the event of accident dispersion, the liquid cannot be spread with outside.

To store in containers out of plastics (polychloride of vinyl or polyethylene).

8 EXPOSURE CONTROL / PERSONAL PROTECTION

Use personal protection equipment as per Directive 89/686/EEC.

Exposure limit values per INRS ED 984 :						
France	VME-ppm	VME-mg/m3	VLE-ppm	VLE-mg/m3	Notes	TMP N°
1310-58-3	-	-	-	2	-	-
1310-73-2	-	2	-	-	-	-
Exposure limit values (2003-2006)						
UK/WELs	TWA	STEL	Ceiling	Definition	Criterion	
1310-58-3	-	2 mg/m3	-	-	-	
1310-73-2	-	2 mg/m3	-	-	-	
UK/OES	TWA	STEL	Ceiling	Definition	Criterion	
1310-58-3	-	2 mg/m3	-	-	-	
1310-73-2	-	2 mg/m3	-	-	-	

Respiratory protection :
When the workers are confronted with concentrations higher than the limits of exposure, they must carry suitable masks and counsel.

Hand protection :

Protective creams may be used for exposed skin, but they should not be applied after contact with the product.
Where there is a risk of contact with the hands, suitable gloves must be used.
Type of gloves recommended : gloves recommended : butyl rubber, neoprene, nitrile.

Eye and face protection :

Avoid contact with the skin and eyes.
Provide personnel with gloves, face masks and safety goggles. Provide eye washes in workshops where the product is constantly handled.

Skin protection :

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.
For further information, see § 11 of S.D.S. – Toxicological information.

9 PHYSICAL AND CHEMICAL PROPERTIES

General information :	
Physical state	Fluid Liquid
Important health, safety and environmental information :	
pH of substance / preparation	Strongly basic
When a pH measure is possible, it has a value of	Not stated
Boiling point/boiling range :	Not specified
Flash Point interval	Not relevant
Vapour pressure	Not relevant
Density	> 1
Water solubility	Soluble
Others information :	
Melting point/melting range	Not specified
Self-ignition temperature	Not specified
Decomposition Point/decomposition range	Not specified

10 STABILITY AND REACTIVITY

The preparation is stable at the handling and storage conditions recommended per § 7 of the safety date sheet.

Material to avoid :

Sharp reactions with acetic aldehyde, acrolein, acrylonitrile and maleic anhydride. With 1-2 Dichloroethylene and trichloroethylene, it is formed made up monochloracetylene and dichloroacetylene which can explode easily. Zinc, coppers, tin, aluminium, lead, bronzes, brass are suceptibles of reacts with hydrogen release.

Hazardous decomposition products :

At high temperatures and by corrosion of metals, possibility of flammable and explosive hydrogen formation.

11 TOXICOLOGICAL INFORMATION

No data is available regarding the preparation itself.
It is generally agreed that substances contained are likely to cause tissue damage in less than three minutes after application to the healthy, unbroken skin of an animal.

In the event of exposure by inhalation :

Intense irritation of the ocular and respiratory mucous membranes : conjunctiva hyperaemic, whimpering, ocular pain, cough and dyspnea. It is necessary to fear occurred of an organic pulmonary oedema.

In the event of swallowing :

Pains oral, intestinal and epigastria. The vomiting is frequent and bloody. Severe burns of the oral cavity.

In the event of splashes or contact with skin :

Projections of concentrated solutions are responsible for severe caustic lesions if a decontamination is not quickly carried out.

The cure is slow with sometimes retractile scars.

In the event of splashes or contact with eyes :

Projections of concentrated solutions are responsible for severe caustic lesions, if a decontamination is not quickly carried out. In the event of attack, invalidating after-effects are possible : corneal opacities, cataract, glaucome…

Possibility of attack, of all fabrics of the eye with risk of blindness.

12 ECOLOGICAL INFORMATION

No ecological data on the product itself is available.
The product must not be allowed to run into drains or waterways.

Eco toxicity :

For the Potassium Hydroxide in solution to 50% - FISH – CL50 (24 h) = 80 mg/l, DAPHNIDS –CL50 (24 h) = 270mg/l.

For the sodium hydroxide : FISH – CL50 (96 h) = 125 mg/l, DAPHNIDS – CE50 (48 h) = 40mg/l.

Harmful for the watery organizations because of the alkaline pH.

The diluted product is quickly neutralized.

13 DISPOSAL CONSIDERATIONS

Do not pour into drains or waterways.

Waste :

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

14 TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for the road, RID for the rail, IMDG for the sea and ICAO/IATA for the air transport (ADR 2007 – IMDG 2006 – ICAO/IATA 2007).
UN3266 = CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
(Potassium Hydroxide, sodium hydroxide)

ADR/RID	Class	Code	Pack gr.	Label	Ident.	QL	Provis.
	8	C5	II	8	80	LQ22	274

IMDG	Class	2° Label	Pack gr.	LQ	EMS	Provis.			
	8	-	II	1 L	F-A,S-B	274 944			
IATA	Class	2° Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	
	8	-	II	808II	1 L	812	30 L	A3	
	8	-	II	Y808	0.5 L	-	-	-	

15 REGULATORY INFORMATION

This preparation was classified in compliance with the directive known as <All preparations> 1999/45/CE and its adaptation.

In addition directive 2004/73/CE with the 29° adaptation of directive 67/548/CEE (Hazardous substances) have been taken into account.
This product is not classed as flammable.

Preparation Classification :

Contains:

215-185-5	SODIUM HYDROXIDE
215-181-3	POTASSIUM HYDROXIDE

Particular hazards associated with the preparation and safety recommendations :

R 35	Causes severe burns
S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 60	This material and its containers must be disposed of hazardous waste

16 OTHERS INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions. It is all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties.
This card supplements the technical notes of use but does not replace them. The information which it contains are based on the state of our knowledge relating to the product concerned. They are given in good faith.

The attention of the users is moreover drawn to the possible incurred risks when the product is used with other uses that those for which it was conceived. The user will take under his only responsibility the precautions related to the use of the product.

The purpose of the whole and lawful regulations mentioned is to help the recipient in his obligations for the utilisation of dangerous products.

Full text of risk phrases appearing in section 3:

R 22	Harmful if swallowed
R 35	Causes severe burns

Labelling for contents (Regulation EC n°648/2004 - 907/2006):

- less than 5% : nonionic surfactants

DESCALE-PRO

ACID LIQUID SCALING

CHARACTERISTICS :

Aspect: Translucent liquid
pH: 2
Density: 1.2
Biodeterioration > to 90%
5 mn < TPS contact < 15 mn
Temperature until 60°C
Conform to the Decree of the 08.09.1999 relating one to the cleaning of the material which can be in contact with foodstuffs.

PROPERTIES :

Its surface-active components increase its acidity,
facilitates degreasing and descaling.
It gives again the glare of the nine.
Its acidity gets a disinfecting activity to him.
Conform to standards NF IN 1040 (1%) and NF IN 1276 (1%)

DIRECTIONS FOR USE:

To directly inject the product in the flushing water using the automatic measurers.
Proportion employment: from 50 with warm water 200g/l

APPLICATIONS :

On all types of machines having a specific batcher:
Washing machine, crockery, glassmaking, autoclaves, coffee machines, teapots, pots, percolators, sterilizers
Superheaters, fountains, medical material, boiler of furnaces vapors…
Not to use on aluminum or light alloys

RECOMMENDATIONS :

To consult the card of data of safety before employment

GUARANTEE: NOT CONTROLLING THE APPLICATIONS, IT IS IMPORTANT WITH THE USER TO MAKE SURE, BY TESTS, THAT THE PRODUCT IS APPROPRIATE WELL WITH USE FOR WHICH HE INTENDS IT.
OUR GUARANTEE COULD NOT EXCEED THE REPLACEMENT OF A PRODUCT FOUND DEFECTIVE

DESCALE-PRO

SAFETY DATA SHEET

7 IDENTIFICATION

Identification of the substance or of the preparation :
Nom : **DETART DESCALE-PRO** Product code : IMP 114

Identification of the company :

Supplier : **HOBART**

Hobart House,
51 The Bourne,
Southgate,
London
N14 6RT
www.hobartuk.com

Société : INRS / ORFILA http : /www.centres-antipoison.net

Use of the substance / preparation :
DETERGENT IN FOOD ENVIRONMENT

8 HAZARD IDENTIFICATION

This product is not classified as flammable.
Refer to the recommendations regarding the other product present on the site.
Possibility of serious corrosive effects.
Other information:
The classification in corrosive class is based on a extreme pH value (in accordance with 2001/59/CE, annex VI, paragraph 3.2.5) directive.
Preparation classification:

Cause severe burns.

9 COMPOSITION and INFORMATION ON INGREDIENTS

Full text of risk appearing in section 3: see section 16.

Hazardous Substances present on their own
(present in the preparation at a sufficient concentration to give it the toxicological characteristics it would have in a 100% pure state).

INDEX	CAS	CE	Nom	Symb.	R :	%
007-004-00-1	7697-37-2	231-714-2	NITRIC ACID …%	**C O**	C ; R35 O. R8	10 <= x % < 25
Other substances representing a hazard :						
015-011-00-6	7664-38-2	231-633-2	PHOSPHORIC ACID …%	**C**	C ; R34	10 <= x % < 25
Substances present at a concentration below the minimum danger threshold						
No known substance in this category is present.						
Other substances with occupational exposure limits :						
No known substance in this category is present						

1 FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing in an unconscious person.

In the event of exposure by inhalation:
(Spray inhalation)
In the event of inhalation, transport the patient to free air. Oxygen or artificial breathing if required. Call upon a doctor.
Bring the patient to hospital if symptoms persist.

In the event of splashes or contact with eyes:
Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :
Remove all contaminated or stained clothing immediately.
DO NOT USE them again until they have been decontaminated. Wash the skin thoroughly with soap and water or a known cleaner.
DO NOT USE solvents or thinners.
If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient must be transferred to hospital.

In the event of swallowing :
If swallowed accidentally, DO NOT allow to drink, DO NOT induce vomiting but transfer the patient to hospital immediately by ambulance. Show the label to the doctor.
Thoroughly rinse mouth and lips if the patient is conscious.

Specific and immediate treatment:
In case of splashes on eyes and on skin, treat the eyes a priority.

2 FIRE-FIGHTING MEASURES

Suitable extinguishing media:
Pulverized water

Special protective equipment for fire-fighters:
Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus and must wear protective clothes.

Special exposure hazards arising from the substance or preparation itself as such , combustion products, resulting gases :
Cool the containers exposed by fire.
At high temperature: reacts to metals with hydrogen release, highly flammable and explosive product.

3 ACCIDENTAL RELEASE MEASURES

Personal precautions:
Avoid any contact with the skin and eyes.
Consult the safety measures listed under headings 7 and 8.

Environmental precautions:
Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
Prevent any material from entering drains or waterways.
Use drums to dispose of waste recovered in accordance with applicable regulations (see heading 13)

Methods for cleaning up :

Neutralize with a basic decontaminating product for instance a carbonic sodium water solution or similar.
If the ground is contaminated and once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.
If a large amount has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.
Clean preferably with a detergent, do not use solvents.
Attention: Neutralization is a n exothermic reaction.

7 HANDLING AND STORAGE

The regulations relating to storage premises apply to workshops where the product is handled.

Handling:

Handling and storage instructions on Corrosive products have to be applied.
Have appropriate ventilation and drain with respect to the equipment.
Handle with care avoiding projection.

Fire prevention:

Prevent access by unauthorized personnel.

Recommended equipment and procedures:

For personal safety, see § 8.
Observe precautions stated on label and also industrial safety regulations.
Product must not come into contact with the skin and eyes.
Provide safety showers and eyes washes in workshops where the product is handled constantly.

Prohibited equipment and procedures:

Smoking, eating and drinking are prohibited in premises where the preparation is used.
Never open the packages under pressure.

Storage:

Keep the container tightly closed in a dry place.

14 EXPOSURE CONTROL / PERSONAL PROTECTION

Use personal protection equipment as per Directive 89/686/EEC.

Technical rules to apply:
Make sure air is constantly renewed.

Valeurs limites d'exposition selon INRS ED 984 et Arrêté Français du 30/06/04 :						
France	VME-ppm	VME-mg/m3	VLE-ppm	VLE-mg/m3	Notes	TMP N°
7664-38-2 7697-37-2	0.2 2	1 5	0.5 4	2 10	- -	- -

Exposure limit values (2003-2006)					
Germany /AGW	VME	VME	Going beyond	Remarks	
7697-37-2	2 ml/m3	5.2 mg/m3	1 (I)	DFG.	

Respiratory protection:
Avoid breathing the fog.

Hand protection :

Protective creams may be used for exposed skin, but they should not be applied after contact with the product.
Where there is a risk of contact with the hands, suitable gloves must be used.

Eye and face protection :

Avoid contact with the skin and eyes.
Provide personnel with gloves, face masks and safety goggles. Provide eye washes in workshops where the product is constantly handled.

Skin protection :

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.
For further information, see § 11 of S.D.S. – Toxicological information.

14 PHYSICAL AND CHEMICAL PROPERTIES

General information :	
Physical state	Fluid Liquid
Important health, safety and environmental information :	
pH of substance / preparation	Strongly basic
When a pH measure is possible, it has a value of	Not given
pH when diluted	1.5 to 1%
Boiling point/boiling range :	Not relevant
Flash Point interval	Not relevant
Vapour pressure	Not relevant
Density	> 1
Relative density	1.2
Water solubility	Soluble
Others information :	
Melting point/melting range	Not relevant
Self-ignition temperature	Not relevant
Decomposition Point/decomposition range	Not relevant
Colour	No colour

15 STABILITY AND REACTIVITY

The preparation is stable at the handling and storage conditions recommended per § 7 of the safety date sheet.

Condition to avoid:

Temperature below 5°C and above 40°C.

Material to avoid :

Sharp reactions with alkalis and metal.

Hazardous decomposition products :

At high temperatures and by corrosion of metals, possibility of flammable and explosive hydrogen formation.

16 TOXICOLOGICAL INFORMATION

It is generally agreed that substances contained are likely to cause tissue damage in less than three minutes after application to the healthy, unbroken skin of an animal.

In the event of exposure by inhalation:

Corrosive for respiratory mucous membranes:

In the event of swallowing :

Pains oral, throat, intestinal and epigastria. The vomiting is frequent and bloody. Severe burns of the oral cavity.

In the event of splashes or contact with skin :

Projections of concentrated solutions are responsible for severe caustic lesions if a decontamination is not quickly carried out.

The cure is slow with sometimes retractile scars.

In the event of splashes or contact with eyes :

Very corrosive for the skin. Projections of concentrated solutions are responsible for severe caustic lesions, if a decontamination is not quickly carried out. In the event of attack, invalidating after-effects are possible : corneal opacities, cataract, glaucoma…

Possibility of attack, of all fabrics of the eye with risk of blindness.

17 ECOLOGICAL INFORMATION

Persistence and degradability : Tensio-activ biodegradability above 90% as requested by legislation.

18 DISPOSAL CONSIDERATIONS

Waste :

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or an certified company.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Reuse of empty container is strongly disrecommanded.

14 TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for the road, RID for the rail, IMDG for the sea and ICAO/IATA for the air transport (ADR 2007 – IMDG 2006 – ICAO/IATA 2007).
UN3264 = CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.

(Nitric acid …%).

ADR/RID	Class	Code	Pack gr.	Label	Ident.	QL	Provis.
	8	CI	III	8	80	LQ7	274

IMDG	Class	2° Label	Pack gr.	LQ	EMS	Provis.			
	8	-	III	5 L	F-A,S-B	223 274 944			
IATA	Class	2° Label	Pack gr.	Passager	Passager	Cargo	IATA	Class	
	8	-	III	818	5 L	820	60 L	A3	
	8	-	III	Y818	1 L	-	-	-	

17 15 REGULATORY INFORMATION

This preparation was classified in compliance with the directive known as <All preparations> 1999/45/CE and its adaptation.
In addition directive 2004/73/CE with the 29° adaptation of directive 67/548/CEE (Hazardous substances) have been taken into account.
This product is not classed as flammable.
Preparation Classification :

Corrosive

Contains :

007-004-00-1	NITRIC ACID
015-011-00-6	PHOSPHORIC ACID

Particular hazards associated with the preparation and safety recommendations:

R 35	Cause severe burns
S 26	In the event of contact with the eye, rinse immediately and thoroughly with water and consult a specialist.
S 36/37/39	Wear appropriate protective clothes, gloves and a protective device for eyes/face.
S 45	In case of an accident or a weakness, call for a Doctor immediatly (if possible, show him the label.
S 23	Do not inhale gas/ fumes/vapors/sprays (appropriate word has to be donated by the manufacturer)

Specific stipulation:
The corrosive clasification is based on an extrem value of pH (ref to Directive 2001/59/CE, annex VI, paragraph 3.2.5).
Nomenclature of the classified installations. (France) (For Quantité total Quantité lira presents in the installation).
Phosphoric acid (Employment, storage of): N°1611 - in (Quantity>= 250 T) => Régime A and Ray of posting of 1 km/in (Quantity>= 50 T) but (Quantity < 250t) => Régime D.

ALIMENTARITE: Decree of the 9/8/99 relating to the substances authorized for the cleaning of materials and objects intended to be put in contact with the foodstuffs.

Table of the occupational diseases according to the Labor regulation:.

N°34 table - Affections caused by phosphates, pyrophosphates and thiophosphates of alkyl, aryl or alcoylaryle and others organophosphorés anticholinesterasic like by the heterocyclic phosphoramides and carbamates anticholinesterasic.
Special medical supervision according to the decree of July 11th, 1977 for phosphorus and its compounds.

17 OTHER INFORMATION

As the end user's working conditions are not known from us, the information given in this safety data sheet are based on the present state of our knowledge and on the national and European regulations.

The product shouldn't be used for other purposes than those specified in heading 1 without having received beforehand written handling instructions.

It is always from the end user's responsibility to take any necessary action to address the local rules and laws.

The information given in this sheet have to be considered as a description relating to the safety requirements relating to our product and not as a guaranty of its properties.

This document applies AS IT IS, in accordance with the specifications given by SANTOR SAS.

SANTOR SAS : tel : 01.39.33.24.60
Fax : 01.39.33.24.61
info@santor.fr

The information given on this document is sincere and based on our latest knowledge relating to the concerned product when editing this document.

End user's attention is drawn on potential risks when using the product for other purposes than the ones for which it is intended for.

In the event of combining or mixing, make sure no additional risk might occur.

It is the consignee's duty to refer to the set of official and legal texts relating to the usage, the keeping and the handling of the product for which he has the only responsibility.

The user of the product has also to inform the persons who might be in contact with the product (instuctions, storage, any intervention) about any necessary information related to safety, health and environment protection, by forwarding them this safety data sheet.

This sheet must be used and copied only for prevention and safety purpose.

Wording of the R sentences of paragraph 3:

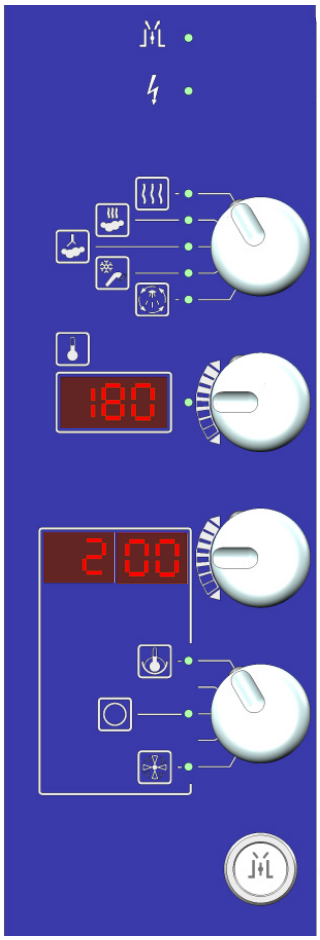
R 34	Cause burns
R 35	Cause heavy burns
R 8	Increases the risk of inflammation of combustible material.

MODE DE CUISSON

UTILISATION RAPIDE

1 Mode

2 Température



Indicateur d'ouverture du Oura

Indicateur présence de tension

Choix du Mode : Convection
Mixte
Vapeur
Refroidissement / Rinçage
Nettoyage

Réglage Température

Réglage Température à cœur / Temps
ou Vitesse de ventilation

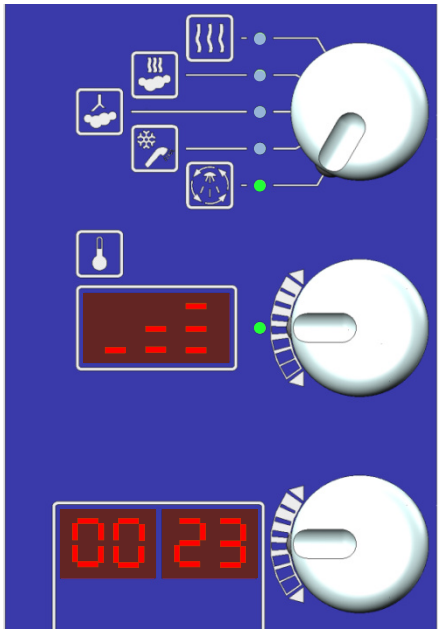
Bouton de sélection Température à cœur
Temps
Vitesse de ventilation

Ouvrir / Fermer le Oura

NETTOYAGE

UTILISATION RAPIDE

1 Mode nettoyage



Sélection
mode nettoyage

Equator **sans** option lavage automatique

Affichage de
après la mise en température
pour application manuelle du produit de nettoyage dans l'enceinte

Equator **avec** option lavage automatique

Choix de l'intensité de nettoyage de 1 à 4 :

1 

2 

3 

4 

Affichage du Temps estimé après la mise en température

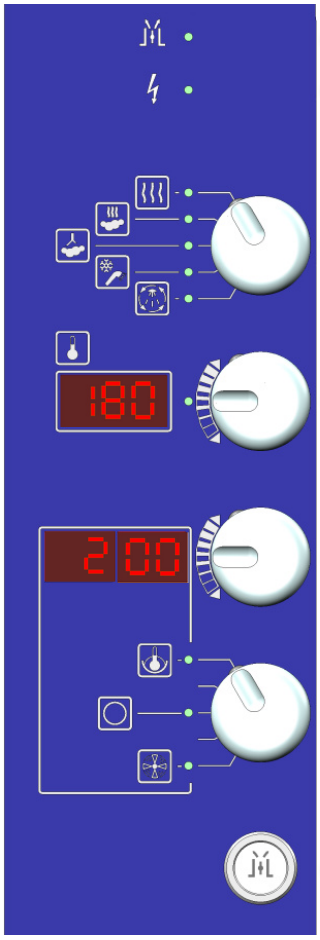
QUICK GUIDE *Equator*

COOKING

QUICK LAUNCH

1 Mode

2 Temperature



Oura indicator

Power indicator

Select Mode :
- Convection
- Combi
- Steam
- Cooling / Rinsing
- Cleaning

Set Temperature

Set Core Temperature / Time or Fan speed

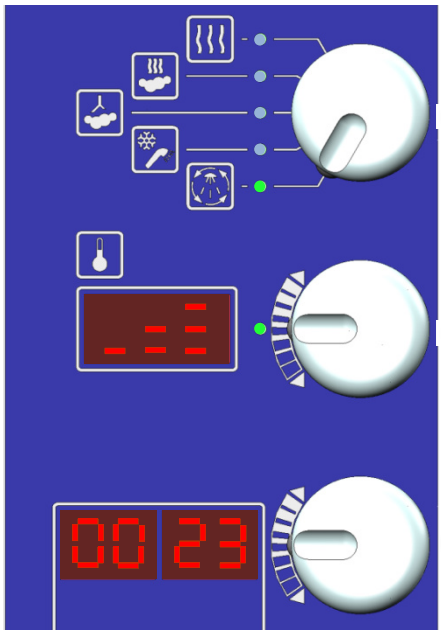
Selection button
- Core Temperature
- Time
- Fan speed

Open / Close the vent

CLEANING

QUICK LAUNCH

1 Cleaning Mode



Select cleaning

Equator **without** automatic cleaning option

Display of 

after preheating to spray the cooking cavity with cleaning product

Equator **with** automatic cleaning option

Choose the cleaning intensity from 1 to 4 :

1 

2 

3 

4 

Display of the estimated time after preheating