| Del/DQA/ GeM TP/ Hydration Pack /2016/181 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purses and Handbags and Bags- UNSPSC CODE - 531216 |  |  |  |  |  |  |  |  |  |  |
| UNSPSC CODE 53121600-Hydration Pack |  |  |  |  |  |  |  |  |  |  |
| Hydration Pack |  |  |  |  |  |  |  |  |  |  |
|  |  |  | valtel |  |  |  |  |  |  |  |
| 1 | Governing Specification | CH | Conforming to QR/specification for Hyderation Pack approved by MHA vide letter No. - U.II24 ( spec )Spec )/ 2013-14$\operatorname{Prov}(\mathrm{CoBRA})$ ) dated 02-09 2013 |  |  |  |  |  |  | Number |
| 2 | URL of Specification for Hydration Pack | CH | https://dgserver.dgsnd.go $\mathrm{v} . \mathrm{in} / \mathrm{rc} / 5312160001$.pdf |  |  |  |  |  |  |  |
| 3 | Colour of Hydration Pack | CH | Olive Green | Any other colour as per buyer's requirements |  |  |  | Yes |  |  |
| 4 | Capacity of Resevoir | N | 3 |  |  | Litre |  |  |  |  |
| 5 | Mass of Resevoir ( max ) | N | 230 |  |  | $g$ |  |  |  |  |
| 6 | Material of Resevoir | CH |  |  |  |  | * |  |  |  |
| 7 | Construction, composition and mass of fabric for outer Shell | CH |  |  |  |  | * |  |  |  |
| 8 | Essential accessory ( for removal of bacterial colonies that may build up inside the system ) | CH | Sets of at least two cylindrical nylon bristle brushes (a large one for inside of the reservoir, and a thin one for the drinking tube ) |  |  |  |  |  |  |  |
| 9 | Availability of Test Report from NABL/ ILAC accredited or Central Govemment Lab to prove conformity of products to the specification. | CH | Yes |  |  |  |  |  |  |  |
| 10 | Test report to be furnished to buyer on demand | CH | Yes |  |  |  |  |  |  |  |
| 11 | Test Report No. | CH |  |  |  |  |  | * |  |  |
| 12 | Test Report Date | CH |  |  |  |  |  | * |  |  |
| 13 | Name of the Lab | CH |  |  |  |  |  | * |  |  |
| 14 | Address of The Lab | CH |  |  |  |  |  | * |  |  |
| Note: | *Must be declared. |  |  |  |  |  |  |  |  |  |

# No. U.II-24(Spec)/2013-14-Prov(CoBRA) <br> Bharat Sarkar/Government of India <br> Griha Mantralaya/Ministry of Home Affairs <br> PM Division/Prov. I Desk <br> ***** 

To,
26, Man Singh Road, Jaisalmer House
New Delhi, Dated : 2 h fSeptember, 2013
DsG : AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG \& BPR\&D.

## Subject : QRs of Hydration Pack \& Machete.

The QRs of Hydration Pack \& Machete as per Appendix ' $C$ ' and Appendix ' $D$ " respectively have been accepted by the Competent Authority in MHA
2. Henceforth, all the CAPFs should procure the above items required by them strictly as per the laid down Technical Specifications/QRs.


Under Secretary to the Govt. of India
Tel : 23381278
Encl : As above.
Copy forwarded to : SO (IT), MHA, with the requested to host the QRs (soft copy being sent through email) on the MHA website (under the page Organisational Set up-Police Modernisation Division - Qualitative Requirements)

Copy to : Director (Procurement), MHA.
Copy for information to : PS to JS (PM)

The draft specification of above items as approved by the sub-group are placed at Appendix-C (Hydration Pack) \& Appendix-D (Machete).


## Appendix "C"

## QRS / SPECIFICATION OF HYDRATION PACK

- Hydration system that is in itself built like a backpack so that if at all it is desired to carry it as a standalone system, it may be carried so.
- It should also be capable of being attached to the outside of a military backpack with straps/fasteners/Velcro's so that if the soldier wants to attach the system to the outside of the backpack, he may do so.
- The straps/fasteners/Velcro's of the hydration system must be removable so that if the soldier wants to keep only the shell inside his backpack for compactness or for protecting it from heat, he may do without the encumbrance of the straps, etc.
- The reservoir must be made of flexible impermeable insulating material. Material through which water seeps out and evaporates is not acceptable.
- The reservoir must be protected by a flexible fabric shell so that the reservoir is unlikely to be damaged by other gear that it shares the interior of the backpack with.
- The fabric of the shell must be waterproof and the shell should have such construction that it does not allow water to get inside where the reservoir is.( Soaking increases the weight which is critical- it also increases the chances of contamination).
- The reservoir should be strong enough to withstand pressures of rough usage in field condition (For example, in combat the soldier may have to drop the load of his back in a hurry) and particularly because there would be metallic objects (like ammunition, tools etc) in the backpack. (for the purpose of ruggedness in this context, the device shall the tested by keeping inside backpack loaded with

a total weight of 15 kg which will have besides the regular items carried by the soldiers, metallic items like 150 rounds of $7.62 \times 39$ mm ammunition, steel teaspoon, mess tin, INSAS bayonet in scabbard, etc. and dropping it from the back of a six foot man on hard ground.)
- Weight of reservoir not to exceed 230 grams.
- The configuration of the reservoir inside the shell and the shell itself must be vertical so as to blend with the backpack.
- Reservoir capacity to be 03 Liters.
- The reservoir must have a screw capped absolutely leak proof mouth for filling and a 37 inches long flexible drinking tube to allow the wearer to drink hands-free.
- The mouth must have a diameter of at least 5 cms to facilitate easy filling.
- The drinking tube must have a ' bite valve' at the end which must open only when the user bites down on it - the valve should also have a dust cover for hygienic concerns.
- Before the bite valve there must be a one-way rotating tap valve operable by one hand that stays open or closed according to the position of a lever, so that even if the bite valve is pressed accidentally, the water does not leak out.
- The bite valve must be installed with a right angle extension between it and the tube, to achieve a preferred positioning and angle of the valve relative to the user's mouth. (desirable)
- In - line ceramic based filter to allow the use of locally available water. The ceramic filter should be capable of cleaning later by back flushing with clean water so that replacements are not necessary (desirable).


- There should be plastic foam tubing to surround the drinking tube to reduce heat transfer between the environment and liquid in the tube.
- The mouth, the valve and all joints, seams of the reservoir must be absolutely leak / spill proof even when the reservoir or the whole system is violently shaken.
- The drinking tube must join the reservoir very near the bottom of the reservoir to maximize the volume of accessible liquid.
- There should be channel inside one or both of the shoulder straps, for the tube to pass through, preventing the tube from tangling with other gear or the environment, and reducing the chances of the liquid warming up while waiting in the tube to be drunk next.
- The reservoir's change in volume as it is gradually emptied must be reflected in the decrease of its smallest dimension (thickness); so that the vertical and side-to-side dimensions stay fixed, thereby limiting the shifting of it and any items next to it, and minimize the flexing of the reservoir walls.
- Essential accessory: Sets of at least two cylindrical nylon bristle brushes (a large one for inside of the reservoir, and a thin one with a flexible handle long enough to run at least half way through the drinking tube permitting removal of bacterial colonies that may build up inside the system).
- Means of holding the reservoir walls apart to encourage drying between uses, such as a plastic frame that collapses to pass through the fill opening, but expands inside the reservoir to hold the sides apart even near the corners. (desirable accessory)


