



## **Recommendations for the safe preparation and feeding of powdered infant formula (PIF) in child day-care settings**

**This document should be read in conjunction with the Food Safety Authority of Ireland’s (FSAI) *Guidance Note No. 22 Information Relevant to the Development of Guidance Material for the Safe Feeding of Reconstituted PIF***

### **IT IS NOT RECOMMENDED THAT CHILD DAY-CARE FACILITIES PREPARE PIF FOR THE INFANTS IN THEIR CARE**

In most child day-care environments, facilities are not appropriate for the preparation of large numbers of PIF feeds on a daily basis. Given the number of infants that can be present in child day-care facilities, there is potential for mistakes if feeds are made up from scratch, e.g. wrong PIF given to an infant. The practicality of making up multiple fresh feeds in a busy hands-on child-care environment must also be considered. These considerations have to be offset against the risks of temperature abuse of pre-prepared feeds during transport from the home. The procedure that is recommended is designed to minimise these risks to an extent where on balance, the careful transport of pre-prepared feeds by the parent is the more practical and safer option.

## **(A) Preparation of PIF at Home and Transporting to the Child Day-care Setting**

**Step 1.** Feeds should be prepared at home using the 70°C preparation method recommended for the safe feeding of PIF in domestic setting (see GN 22 step 1-5).

**Step 2.** Cooled feeds should be marked with the child's name and stored in the body of a refrigerator below 5°C until they are completely cold prior to transportation but for no longer than 24 hours.

**Step 3.** Immediately prior to leaving for the child day-care facility, the correct number of feeds should be taken from the refrigerator and placed ideally in a clean cool-box or bag with a suitable number of ice-blocks, to maintain the feed at 5°C.

**Step 4.** On arrival at the child day-care facility, the feeds should be transferred from the cool-bag or cool-box to a dedicated refrigerator in the child-care facility maintained at 5°C or below. The fridge should be equipped with a fridge thermometer to enable the temperature to be checked and adjusted if necessary.

**Step 5.** To feed, child-care workers should remove 1 bottle just before it is needed. The bottle should be checked to ensure the name on the bottle corresponds to the infant. If necessary, the feed should then be warmed to feeding temperature using a bottle warmer or by standing the feed in a container of warm water. Never leave a feed warming for more than 15 min. Ensure the feed is not too hot by shaking the bottle and placing a drop of liquid on the inside of the wrist – it should feel lukewarm (note: some children drink milk at refrigeration temperatures).

**Step 6.** Discard any feed that has not been consumed within 2 hours of warming/first use. For slow feeding babies, use a fresh feed after 2 hours.

**Step 7.** Unused feed should be discarded and the used bottles rinsed in warm tap water.

**Step 8.** All feeding bottles should be returned at the end of the day when the infant is collected.

**Step 9.** Used feeding bottles should be cleaned thoroughly at home and sterilised as recommended in the section on cleaning and sterilising feeding equipment.

## **(B) Preparation of PIF in Child Day-care Settings**

Please note any PIF that is also classified as a food for special medical purpose (FSMP) must not be made up in a child day-care facility. If a child day-care facility chooses to prepare the PIF on site, the safer alternative to preparing PIF is to use a ready-to-feed commercially sterilised liquid formula available in cartons. However, if a child day-care facility decides to prepare PIF in its facility, the following guidelines should be followed:

### **(i) The safe preparation of infant feeding equipment**

It is recommended that where PIF is made up onsite in a child day-care facility, washing and sterilisation of bottles are done at the child day-care facility, regardless of whether the bottles have been sterilised at home.

- Wash hands thoroughly before cleaning feeding equipment.
- Wash feeding and preparation equipment in hot soapy water before sterilisation. Scrub the insides and outsides of teats and bottles with a bottle and teat brush to remove all remaining traces of feed.
- Dishwashers can be used to clean feeding and preparation equipment but only if the equipment is dishwasher proof and stacked correctly following machine instructions. The suitability of feeding and preparation equipment for dishwasher use should be checked prior to washing. **Dishwashers will not sterilise feeding and preparation equipment.**
- Clean feeding and preparation equipment should be sterilised prior to use:
  - Steam is the best method of sterilising feeding equipment. Commercially available home electrical units or units that work in the microwave oven are available. Always follow manufacturer's instructions
  - Sterilisation is also possible by immersion in boiling water. Fill a large pan with tap water and completely submerge all feeding and preparation equipment ensuring there are no trapped air bubbles. Cover the pan, bring to the boil and boil for at least 3 minutes making sure the pan does not boil dry
  - Sterilisation is also possible using chemical sterilant added to water. Make up a batch of sterilant following manufacturer's instructions. Ensure all equipment is completely immersed in the liquid and that there are no trapped air bubbles. Leave the equipment submerged for the length of time specified by the manufacturer and follow all other manufacturer's instructions
- Wash hands and surfaces before handling and assembling sterile feeding equipment.
- Bottles or other feeding equipment should be assembled immediately after sterilisation. Care should be taken to avoid touching the teats and the insides of the bottles, sealing discs, bottle caps and collars. Sterile tongs may be used to fix teats into collars. Once assembled correctly, bottles will remain sterile for 24 hours providing that they remain unopened.

## **(ii) Facilities and Procedures**

There must be a clean dedicated suitable area for the preparation and handling of PIF. If the preparation is taking place in the main kitchen, the main kitchen facilities/ equipment can be dual use but the preparation of PIF should not take place at the same time as other food preparation. Whether the PIF is made up in the kitchen, milk-kitchen or separate dedicated area, preferably not within the care room, the following should be present:

- Sink
- Wash hand basin
- Refrigerator
- Preparation area and storage space
- Written procedures must be in place for the safe preparation and handling of PIF. The procedures must demonstrate adequate food safety controls and should form part of the food safety management system.
- Staff with responsibility for the preparation and handling of PIF must receive appropriate training based on the written procedures in place. Where possible, there should be staff dedicated to PIF preparation and handling and different staff dedicated to nappy changing/ toilet or cleaning duties. If this is not practical there should be proper separation of duties and scrupulous hand washing must be observed.
- The implementation of the written procedures should be routinely monitored.
- A system should be established to ensure full traceability of PIF from infant to the actual batch of PIF used to feed that infant. To facilitate this, there is a need to have documentation individual to each child setting out his/her requirements, the feed used and what they consumed. All bottles should be labelled with the child's name and date of preparation.
- All feeding and preparation equipment should be clean and sterilised.
- Refrigerators used for the storage of PIF should be equipped with a fridge thermometer and subjected to regular checking and adjustment where necessary to ensure that they are operating at a temperature of 5°C or below.
- Each infant formula tin/container should be labelled to include the date of opening and name of child it belongs to. The PIF should be kept in its original container.

The following steps should be followed when using PIF:

**Step 1.** Boil fresh tap water in a kettle or other suitable covered vessel

**Step 2.** When boiled, leave the water to cool in the kettle (or other suitable covered vessel). Use a clean thermometer to ensure the water is between 70°C and 75°C before use

**Step 3.** Clean the feed preparation area thoroughly and wash hands with soap and hot water and dry

**Step 4.** To make up the feed:

Pour the amount of hot water required into a sterile bottle taking care to avoid scalding. Make each feed up in a sterile bottle by adding the exact amount of PIF as instructed on the label using the clean scoop provided. Re-assemble the bottle tightly and carefully as instructed by the bottle manufacturer and shake well to mix the contents, taking care to avoid scalding (care should be taken that each scoop is stored with its original container)

**Step 5.** Cool feed quickly to feeding temperature by holding the bottle(s) under cold running tap water or immersing in a large volume of cold tap water. Ensure that the cold water does not reach above the neck of the bottle during cooling. Suitable refrigeration, ideally solely dedicated to the storage of infant formula must be provided for the prepared feed where it is made in advance

**Step 6.** To feed:

**a) Immediately:** ensure the feed is not too hot by shaking the bottle and placing a drop of liquid on the inside of the wrist – it should feel lukewarm

**b) Later:** wipe the bottles dry with a clean cloth and place them in the back of a refrigerator (operating at max 5°C), not in the door, and use on the day of preparation. To feed, remove 1 bottle just before it is needed and if necessary, warm to feeding temperature using a bottle warmer or by standing the feed in a container of warm water. Never leave a feed warming for more than 15 min. Ensure the feed is not too hot by shaking the bottle and placing a drop of liquid on the inside of the wrist – it should feel lukewarm. Discard any feed that has not been consumed within 2 hours of warming/ first use. For slow feeding babies, use a fresh feed after 2 hours

**Step 7.** All unused feed should be discarded at the end of each day and the bottles rinsed in warm tap water:

**Step 8.** All feeding bottles should be returned at the end of the day when the infant is collected unless the day-care facility washes and sterilises the bottles and retains them:

**Step 9.** Used feeding bottles should be cleaned thoroughly at home and sterilised as recommended in the section on cleaning and sterilising feeding equipment:



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