

# Information Bulletin

## Fit Testing of MSA Ultra-Twin Masks Made of Hycar and Silicone

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### Summary:

A program of effective mask fit testing is essential to verify that the expected assigned protection factor for a respirator is met. If the fit test and consequent assigned protection factor are uncertain, then the margin of safety from exposure to air contaminant hazards is less certain as well. Workers should be issued a mask made of the same materials as those for which they have been fit tested unless procedural direction allows substitution.

### Discussion of Activities:

The practice of issuing MSA® Ultra-Twin silicone masks for workers fit tested for masks made of Hycar™ was identified as an approved practice at some Fluor Hanford facilities.

Recent correspondence with the manufacturer (MSA) stated that there may not be much difference in fit, since softer silicone rubber would likely fit more tightly than Hycar™. However, they did not have data to support this position. Due to the lack of documented equivalence in fit, substitution of these two materials should not be allowed.

### Analysis:

The mask fit station will collect data from quantitative fit tests on workers who test on both types of masks. This data will be used to determine and document if this practice constitutes a significant difference in the fit factor. If data supports this practice the manufacture will be informed on these results and asked to re-evaluate their guidance. Upon the re-evaluation by the manufacture, procedural direction would be revised.

### Recommended Actions:

- Workers will only be issued the mask of the same specific materials of construction for which they have been fit tested. HNF-PRO-120 *Respiratory Protection*, Section 4.7 (2) specifies that to be issued a respirator, an employee must have "...successful mask fitting on make, model and size of respirator to be issued."
- This guidance will be issued to qualified mask fit issuer's, the HAMMER training facility and to the site Respiratory Protection Committee.
- HNF-120 PRO, *Respiratory Protection*, will be clarified in the next revision to prevent confusion on whether the type of material of construction may be substituted for the same make and model of masks.

**Cost Savings/Avoidance:** NA

**Work Function:** Occupational Safety and Health - Personal Protective Equipment

**Hazards:** Personal Injury/Exposure Airborne Materials

**Keywords:** mask, respirator, Hycar, MSA, silicone, synthetic rubber

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**References:** None

**Distribution:** All PHMC Projects and Programs