

REACH-Exposure Scenario

Downstream use of PM Production



Template
Revision: 5

Issue: April 2009

European Powder
Metallurgy Association

End application made at your site: Metal Injection Moulding		1		MIM Mixes		Raw Material: See list of Substances for MIM-Feedstocks REACH Status: Downstream use of substances			
Process Step		Workplace Exposure Route of exposure to humans				Environmental Exposure Emission to environment			
N°	Description See Table 2	Inhalation	Oral	Dermal	RMM in use See Table 1	Air	Water	Soil	RMM in use See Table 1
1	Raw material handling	yes	yes	yes	LEV, C, RPEum, FPQM, PC, GPum	yes	none	none	F98% SC
2	Mixing	none	none	none	-	none	none	none	-
3	Weighing and Packing	yes	yes	yes	C, RPEum, FPQM, PC, GPuv	yes	none	none	F98% SC
4	Cleaning and Maintenance	yes	yes	yes	C, RPum, FPQM, PC, GPum	yes	none	none	F98% SC

Operational Conditions (OC)

Quality and Quantity of material used: See *List of Substance Packed Powder Mixes*

Physical form (e.g. particle, gaseous media): Particle

Annual operating days (days/year): 260

Number of working hours per day (hours/day): 8/day

Number of shifts per day: 1

Number of employees involved in production: NA

Frequency and duration (e.g. numbers of workers exposed and the time they are exposed and also how frequently are they exposed): NA

1 Table of Risk Management Measures (RMM) in use

Type of Risk Management Measures – <u>Environment</u>	RMM in use (Codes) (Delete whichever does not apply)	Efficiency (if possible, provide a quantitative figure)
To Air:		
Fabric or bag filters	F	98% : F98%
Other:		
To control general diffuse site emissions:		
Storage coverage	SC	
Other:		
Type of Risk Management Measures – <u>Workers</u>	RMM in use (Codes) (Delete whichever does not apply)	Efficiency (if possible, provide a quantitative figure)
Local Exhaust Ventilation (LEV)	LEV	
Cleaning of site	C	
• Respiratory protection equipment (RPE): Pattern of use	Pattern of use mandatory: RPEum Pattern of use voluntary: RPEuv	Mandatory : RPEum

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(mandatory, voluntary, not required?)	Pattern of use not required: RPEunr	
• Face piece (e.g. quarter mask)	FP	Quarter Mask: FPQM
• Protection class (particles)	PC	
• Gloves (G): Pattern or use (mandatory, voluntary, not required?)	Pattern of use mandatory: GPum Pattern of use voluntary: GPuv Pattern of use not required: GPunr	Voluntary: GPuv
• Type of glove (description)		Latex gloves

Comments:

After mixing, airborne dust is unlikely due to the plastics added to the metal powders.

2 Table of Process Steps Full Descriptions

Process Step		
N°	Description	Full Description
1	Raw material handling	The raw materials are transported in closed containers to dosing and weighing station. Manually filling of Substance (see list of Substances for MMQ) into a container for batch dosing under local exhaust ventilation system. Filling from container into the mixer under local exhaust ventilation system.
2	Mixing	Mixing is carried out in a closed unit where the plastic binder is melted and the powders and binder are intensely blended. Then the mass is cooled and granulated automatically. The granules usually do not release significant amounts of dusts unless wrongly manipulated.
3	Weighing and Packing	Under local exhaust ventilation system.
4	Cleaning and Maintenance	Vacuum cleaning in the packing station and of other facilities.

3 Glossary

Term	English	French	German
RPE	Respiratory Protective Equipment	Équipement protecteur respiratoire (EPR)	Atenschutztausrüstung
PPE	Personal Protective Equipment	Équipement protecteur personnel (EPP)	persönliche Schutzausrüstung
LEV	Local Exhaust Ventilation	Ventilation externe locale (VEL)	Absauganlage
RMM	Risk Management Method	Méthode de management du risque (MMR)	Risikomanagementmaßnahme
um	use mandatory	Utilisation obligatoire	Pflichtanwendung
uv	use voluntary	Utilisation volontaire	Freiwillige Anwendung
unr	use not required	Utilisation non requise	Anwendung nicht erforderlich
QM	quarter mask		
C	cleaning	Nettoyage	Reinigung

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