Risk Assessment Form

Assessment number	**Plastica COSHH 02**
Location of work	Plastica
Process/Activity under assessment	Potential exposure from hazardous materials

Description of process/activity and operating conditions
Emptying powder/granules from 25kg bags/drums into a hopper and filling small containers.




Method:
1. Ensure the floor level grill/grate is safely in place.
2. Turn on the dust extractor, open front and rear door – ensure the barrier for the front door is in place.
3. Wear PPE - gloves, boots, overalls and full-face powered respirator.
4. Empty the material into the hopper, either slitting open 25kg bags, or tipping out 25kg drums.
5. Once the hopper is loaded, go downstairs and run the material through the machine.
6. Set the machine up and programme it for the desired weight/material.
7. The dust extraction on the machine is a vacuum cleaner, make sure the vacuum and the flexible pipe are clean and there is a fresh bag in it.
8. Open the valve from the bottom of the hopper.
9. When filling wear PPE i.e. overalls, eye goggle and gloves. Dust mask is to be worn towards the end of a run as the last of the material can be dusty and after 6 hours of sucking the vacuum can be a bit full.
10. The containers are filled by the machine, the operator removes them and puts the lids on, then passes to another person who boxes and palletises the goods.
11. The pallet is then wrapped and either stored in the rack or moved over to the main warehouse.

All Water Treatment personnel carry out this activity and sometimes personnel from other departments.

People at risk

Office staff		**Maintenance staff**		**Cleaning staff**		**Contractors**	✓
Emergency services personnel		**Water Treatment staff**	✓	**Visitors**		**Others**	✓

Hazard identification

Identify the hazards, health effects and routes of entry

Substance/mixture	Workplace Exposure Limit (WEL)	Health effects	Routes of Exposure
001 Sodium Dichloroisocyanurate Dihydrate Granules	Sodium Dichloroisocyanurate Dihydrate - WEL (short term) 0.5 ppm - WEL (short term) 1.5 mg/m3	▪ Harmful if swallowed. ▪ Causes serious eye irritation. ▪ May cause respiratory irritation.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
002 Multi-Pool Granules	Sodium Dichloroisocyanurate Dihydrate - WEL (short term) 0.5 ppm - WEL (short term) 1.5 mg/m3	▪ Harmful if swallowed. ▪ Causes serious eye irritation. ▪ May cause respiratory irritation.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
010 Shock Granules	Calcium Hypochlorite - WEL (long term) 1 mg/m3	▪ Harmful if swallowed. ▪ Causes severe skin burns and eye damage.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
012 Quick Dissolve Calcium Hypochlorite	Calcium Hypochlorite - WEL (long term) 1 mg/m3	▪ Harmful if swallowed. ▪ Causes severe skin burns and eye damage.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
013 Spa Bromine Granules	Sodium Dichloroisocyanurate Dihydrate - WEL (short term) 0.5 ppm - WEL (short term) 1.5 mg/m3	▪ Harmful if swallowed. ▪ Causes serious eye irritation. ▪ May cause respiratory irritation.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
021 pH Minus	▪ No exposure limits	▪ Causes serious eye damage.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
022 pH Plus	▪ No exposure limits	▪ Causes serious eye irritation	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
023 TA Plus	▪ No exposure limits	▪ May cause irritation	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
027 Non Chlorine Shock	Pentapotassiumbis (peroxymonosulphate) bis(sulphate) - MEL / LTEL (respirable dust) 4 mg/m3 - MEL / LTEL (inhalable dust) 10 mg/m3	▪ Harmful if swallowed. ▪ Causes severe skin burns and eye damage.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
041 Granular Floc and Kibbled Alum	Aluminium sulphate - WEL (long term) 2 mg/m3	▪ Causes serious eye damage	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.
087 Multi Functional Cal-Hypo Granules	Calcium Hypochlorite - WEL (long term) 1 mg/m3	▪ Harmful if swallowed. ▪ Causes severe skin burns and eye damage. ▪ May cause respiratory irritation.	▪ Absorption through the skin and eyes. ▪ Ingestion. ▪ Inhalation.

Source of exposure
Times/places/activity, specify agent and route of entry

Activity	Agent	Route of entry	Exposure time
Opening bags and drums and emptying into the hopper	All chemicals identified above	• Absorption through the skin and eyes. • Ingestion. • Inhalation of powder/dust.	1 hour/day
Filling containers from the hopper	All chemicals identified above	• Absorption through the skin and eyes. • Ingestion. • Inhalation of powder/dust.	7 hours/day

Evidence of contamination

Slight dust at end of run

Assessment of Risk
Please complete the risk rating using the scoring key below: -

(A)	SEVERITY
10	Fatal
5	Major injury/Serious damage
2	Minor injury/Minor damage
1	Negligible/Near miss

(B)	LIKELIHOOD OF OCCURRENCE
20	Certain (Most likely to happen)
10	Likely (Not surprised if it happens)
5	Possible (Could happen sometime)
1	Remote (only a small chance it will happen)
0.5	Improbable (probability close to zero)

(C)	PEOPLE AFFECTED
1	1-5 people affected
2	6-50 people affected
3	>50 people affected
3	Vulnerable people or the public affected

	RISK LEVEL
<10	Acceptable (A)
10-19	Low (L)
20-49	Medium (M)
>50	High (H)

Risk Rating					
Hazard	**Severity A**	**Likelihood B**	**People affected C**	**Risk rating A x B x C**	**Risk Level H/M/L/A**
Opening bags and drums and emptying into the hopper	5	1	2	10	L
Filling containers from the hopper	5	5	2	50	H

Engineering etc controls

Guarding	✓	**LEV/Vapour Recovery Systems**	✓	**Interlocks**		**Enclosure**	✓
Standard Operating Procedure (SOP) Work Instructions							
Permits to work N/A							
Other relevant information (monitoring/testing etc) LEV's tested and have Thorough Examination every year. Annual Health Questionnaire to be introduced							

Personal Protective Equipment (PPE)

Eyes-face	✓	**Hand-arm**	✓	**Feet-legs**	✓	**Respiratory**	✓
Body		**Hearing**		**Other (specify)**			

Specify when item(s) of PPE must be worn

The following PPE is required to be worn when filling the hopper:

- Approved chemical safety goggles.
- Safety boots.
- Disposable overalls.
- Gloves.
- Powered respirator with hoods/helmet to BS EN 12941 (fit test not required)

The following PPE is required to be worn when filling containers:

- Approved chemical safety goggles.
- Safety boots.
- Disposable overalls.
- Gloves.
- If exposure is below WEL no respirator required. Otherwise, disposable half mask FFP3 respirator to BS EN 149 (fit test required).

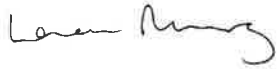
Further Control Measures (e.g. supervision, training requirements, special emergency procedures, health surveillance etc.)

Further Control Measures Required	**Complete by (date)**
• Replace the vacuum cleaner extractor in the filling area with a ventilated enclosure around the filling operation with an inward airflow of at least 1 metre per second. • Measure levels of the chemicals in air to check the exposure is below the WEL for each chemical. Refer to G409 'Exposure measurement: Air sampling'. • Give information and instructions on the hazard exposure to all operators by making them aware of this assessment and by showing them the Safety Data Sheets where available. • Annual Health Questionnaire to be introduced. • Ensure face fit testing is carried out for each person for the half mask respirator.	

Additional information (e.g. guidance documents, Approved Codes of Practice etc)

http://www.hse.gov.uk/coshh
INDG136 'Working with substances hazardous to health: A brief guide to COSHH'
INDG352 'Read the label'

Assessment made by:

Signature		**Role**	Regulatory Consultant, ChemRegs (UK) Ltd
Name	Lorna Murray	**Date**	19 November 2013

Review of Risk Assessment:

Date for Review	**Carried out by**	**Role**	**Signature**
November 2015	Ian Warne	Finance & Operations Director	
November 2016			