



# PHARMA DEVILS

ENVIRONMENT HEALTH SAFETY DEPARTMENT

## HAZARD IDENTIFICATION AND RISK ASSESSMENT

**Department:** Granulation Operation

**Date:**

**HIRA Team:**

**Location:**

S.No.	Activity	Sub-Activity	Hazard	N/A/E	Risk	Existing control Measure	Risk Considering existing control measure			Addition control measures to bring risk to (ALARP level)	Residual risk after applying additional control measures			Remarks (if Any)
							Frequency	Severity	RPN (F*S)		Frequency	Severity	RPN (F*S)	
1.	Granulation Operation	Movement of personals	<ul style="list-style-type: none"> <li>• Wet floor</li> <li>• Non usage of PPEs</li> <li>• Poor house keeping</li> </ul>	N	<ul style="list-style-type: none"> <li>• Slip, trip &amp; fall</li> <li>• Contamination</li> <li>• Skin irritation &amp; allergy</li> </ul>	35	2	2	4	345	2	1	2	



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2.	Granulation Operation	Handling and storage of material	<ul style="list-style-type: none"> <li>• Static charge</li> <li>• Falling hazards.</li> <li>• Sharp edges</li> <li>• Manually handling to heavy equipment.</li> <li>• Leakage and spillage.</li> </ul>	N	<ul style="list-style-type: none"> <li>• Fire</li> <li>• Slip &amp; trip</li> <li>• Cut injuries</li> <li>• Entanglement</li> <li>• Struck by an object</li> <li>• Back injuries</li> <li>• Sprain &amp; strain</li> <li>• Musculoskeletal disorder</li> </ul>	35	3	3	9	345	3	2	6	-
3.	Granulation Operation	During operation	<ul style="list-style-type: none"> <li>• Working without secondary Gowning</li> <li>• Static charge.</li> <li>• Mechanical hazard</li> <li>• Dust particles</li> <li>• Working with naked hands.</li> <li>• Height work</li> </ul>	N	<ul style="list-style-type: none"> <li>• Contamination</li> <li>• Fire</li> <li>• Inhalation of dust particles</li> <li>• Eye irritation</li> <li>• Skin allergy.</li> <li>• Fall of personal &amp; material</li> </ul>	345	3	3	9	2345	3	1	3	-



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4.	Granulation Operation	Packing of material in drum and poly-bags	<ul style="list-style-type: none"> <li>• Static charge generated</li> <li>• Physical injury</li> </ul>	N	<ul style="list-style-type: none"> <li>• Awkward posture</li> <li>• Fire</li> <li>• Anti-static material</li> </ul>	35	2	2	4	345	2	1	2	
5.	Granulation Operation	Entry, Exit way.	<ul style="list-style-type: none"> <li>• Lack of space.</li> <li>• Poor housekeeping</li> </ul>	N	<ul style="list-style-type: none"> <li>• Slip &amp; trip</li> <li>• Fire</li> </ul>	345	2	2	4	2345	2	1	2	
6.	Granulation Operation	Connection wire of moving equipment (not fix).	<ul style="list-style-type: none"> <li>• Electrocution</li> <li>• Moving parts</li> <li>• Sparking</li> </ul>	A	<ul style="list-style-type: none"> <li>• Electrical shock</li> <li>• Fire</li> <li>• Entanglement</li> <li>• Tripping</li> </ul>	35	4	3	12	345	4	1	4	
7.	Granulation Operation	Operation of Rapid Mixture Granulator.	<ul style="list-style-type: none"> <li>• Physical hazards</li> <li>• Electrical hazards</li> <li>• Defective internal locking system</li> </ul>	N	<ul style="list-style-type: none"> <li>• Entanglement</li> <li>• Struck by an object.</li> <li>• Falling of personal</li> <li>• Electrical shock</li> </ul>	35	4	2	8	345	4	1	4	



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8.	Granulation Operation	Operation of card mill.	<ul style="list-style-type: none"> <li>Electrical hazard</li> <li>Physical hazard</li> </ul>	N	<ul style="list-style-type: none"> <li>Electrical shock</li> <li>Awkward posture</li> </ul>	35	3	2	6	345	3	1	3	
9.	Granulation Operation	Operation of Octagonal blender.	<ul style="list-style-type: none"> <li>Electrical hazard</li> <li>Physical hazard</li> </ul>	N	<ul style="list-style-type: none"> <li>Electrical shock</li> <li>Entanglement</li> <li>Struck by an object.</li> <li>Fall of personal &amp; material</li> </ul>	35	4	2	8	345	4	1	4	
10.	Granulation Operation	Operation of FBD	<ul style="list-style-type: none"> <li>Suspended load of bowl</li> <li>Electrical hazard</li> <li>Manually handling of bowl</li> <li>Defective nut bolts</li> <li>Cleaning of bowl</li> </ul>	N	<ul style="list-style-type: none"> <li>Fall of material &amp; personal</li> <li>Electrical shock</li> <li>Back injuries</li> <li>Struck by an object.</li> </ul>	35	3	3	9	345	3	1	3	



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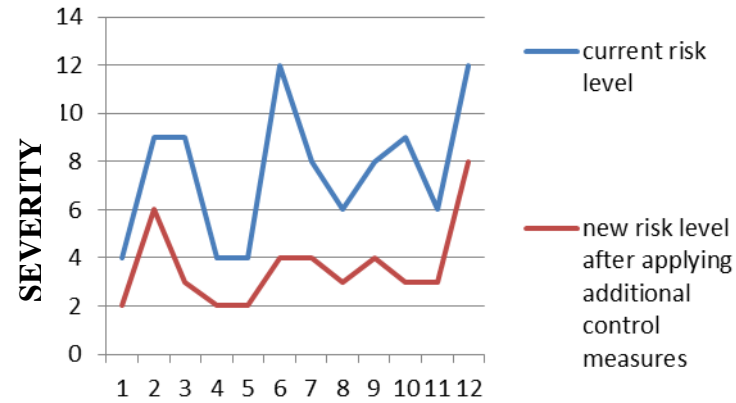
11.	Granulation Operation	Operation of Sifter	<ul style="list-style-type: none"> <li>Electrical hazard</li> <li>Physical</li> </ul>	N	<ul style="list-style-type: none"> <li>Electrical shock</li> <li>Entanglement</li> </ul>	35	3	2	6	345	3	1	3	
12.	Granulation Operation	Maintenance & cleaning	<ul style="list-style-type: none"> <li>Electrical</li> <li>Sharp edges.</li> <li>Slip &amp; trip hazards.</li> <li>Dust</li> <li>Unsecured material</li> </ul>	A	<ul style="list-style-type: none"> <li>Electrical shock.</li> <li>Cut injuries.</li> <li>Struck by an object.</li> <li>Silicosis</li> <li>Fall of material &amp; personal.</li> </ul>	45	4	3	12	345	4	2	8	



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Frequency

### MATRIX

5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
0	1	2	3	4	5

Frequency

LOW  
MODERATE  
HIGH



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### REVISION HISTORY - HIRA Register

Revision No.	Date	Reason for change	Originator (Leader)	Approval
00		New Document	Plant/Functional Manager	Plant/ Functional Head

**Distribution:** Leader /plant/functional Head(s) /Functional Head – EHS

	Prepared By Operating Officer/Executive	Reviewed By Operating Manager	Approved By Department Head	Authorized By Head QA
Sign				
Date				
Name				