

Date: 10th March 2023

The Asst. Director of Factories
Govt. of West Bengal
Durgachak, Haldia, Purba Medinipur
Pin Code- 721602

Sub: Submission of Quarterly Return Form 23A.


Dear Sir,

We enclosed herewith the Quarterly Factory Return in Form 23A for **INDORAMA INDIA PRIVATE LIMITED** for the period **January 2023 to March 2023** for your information and record.


Kindly acknowledge the receipt.

Thanking you
Yours faithfully,

For INDORAMA INDIA PRIVATE LIMITED


(CS Prasad)
Factory Manager

Encl: Form 23A

Government of West Bengal
Office of the Inspector of Factories
Haldia, Purba Medinipur
RECEIVED
Contents not Verified
Sign. 
Date. 10.04.23

*(FORM NO. 23A)
[See Rule 103]

Quarterly Return

Period beginning first of **January** / April / July / October 2023

1. Name of Factory : **Indorama India Private Limited**
2. Postal Address : P. O & PS.- Durgachak, Haldia
Dist.-Purba Midnapur, West Bengal, Pin- 721602
3. Nature of Industry : Chemicals
4. Name of Occupier : **ASHVINI HIRAN**
5. Name of Manager : **CHANDRA SHEKHAR PRASAD**
6. Particulars of toxic/hazardous chemicals stored,
used and handled and chemicals produced and stored,

<u>Name of chemicals</u>	<u>Quantity</u>
i]	
ii]	
iii] As per Annexure	
iv]	
v]	
etc.	

7. New chemical added to the list shown against item 6
Above, during the quarter

<u>Name of chemicals</u>	<u>Quantity</u>
i]	
ii]
iii]	
etc.	

8. Short details of preventive measures provided and maintained in the plant / workplace for
safety of workers and for preventing pollution of environment. **As per Annexure**

Date 10.04.2023

Signature of Manager

* Added by Notification No. 340 L.W./L.W./IR-4/85 dated 9th April, 1986



**Indorama India Private Limited.
HALDIA FACTORY**

NPK Fertilizer	Covered bulk storage. Covered storage for material packed in 50 kg HDPE bags.	Non-toxic, non-flammable granular solid. The chemical does not pose any major health or fire hazard.
Single Super Phosphate	Covered storage shed.	It is a non-toxic, non-flammable powder. It does not pose any Health hazard.

Sl.No.	Raw Material	Monthly Requirement	Quantity Stored
1	Ammonia	12500 MT	2064 MT
2.	Rock Phosphate	10000 MT	1740MT
3.	Sulphur	7,500 MT	990MT
4.	Soda Ash	1 MT	5 MT
5.	Furnace Oil /HSD	120KL/4KL	0KL/60KL
6.	Cashew nut Oil	10 MT	27.5MT
6.	Alum	25 MT	1MT
7.	Defoamer	20 MT	21MT
8.	Lime	30 MT	5MT
9.	Caustic Soda(48% NaOH)	2MT	27 MT
10	Phosphoric Acid (54% P ₂ O ₅)	50,000 MT (Solution)	3810 MT (Solution)
11	Sulphuric Acid	23,000 MT	2300 MT
12.	MOP	21000 MT	430 MT
13.	Low grade coal	350 MT	152 MT
14.	China Clay	2500 MT	42 MT
15	Biomass briquette	180 MT	90 MT
16.	Ammonium Sulphate	300 MT	0 MT



Finished Product:

Fertilisers (DAP, NPK different grade, SSP) - 2000 MT

RAW MATERIALS & PROCESSING CHEMICALS USED

Material	Type of Storage	Precautionary measures taken for storage use and handling
Rock Phosphate	Covered bulk storage at Plant site.	Rock Phosphate powder is mechanically unloaded from the ship and to the shed at docksite for storage using Dumpers. From the docksite Rock Phosphate is brought to the factory in dumpers. A Payloader is used for charging the material for process consumption. Manual handling is avoided even though the material is neither toxic nor a fire hazard. The powder is stored in a covered shed to prevent contamination with water and wind losses.
Sulphur	Bulk storage in open yard at Plant site.	Sulphur is usually received in granular form. It is unloaded from the ship using dumpers to the docksite godown, and transferred to the factory in dumpers. Sulphur also received from IOCL in solid & molten form. In the plant solid sulphur is handled by Payloaders, eliminating manual handling while molten sulphur is unloaded directly into the sulphur melter. Sulphur is not susceptible to spontaneous ignition but ignites in air at 260 ^o C. for Safety reasons it is kept in an open yard segregated from other buildings and protected against fire hazard by a fire hydrant system. Sulphur is non-toxic and insoluble in water. Safety goggles and PVC hand gloves used to handle this.
Ammonia	Atmospheric pressure; Double integrity, Cup in Tank , Suspended deck Outer shell of the tank is insulated with PUF Tank Capacity 10000 MT	Liquid ammonia is received from ship through pipe lines from Haldia oil jetty no 1. One pipe line is 400 mm diameter used for ship unloading and other one is 100 mm diameter used for precooling of ship unloading line. The length of the unloading line is 7.4 km from our installation. Liquid ammonia is stored in the ammonia storage tank is equipped with two pilot operated pressure Safety valves and two numbers vacuum relief valves to safeguard the tank against over pressure or vacuum. The tank is also provided with flare system. A quick closing valve in pump suction line with

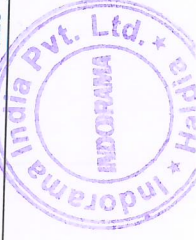


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Indorama India Private Limited.
HALDIA FACTORY

		<p>interlock is provided to close the suction valve if annulus level is higher than cup level.</p> <p>The control system(PC/PLC) of the installation is provided by Rockwell Automation Back Up by UPS</p> <p>12 nos. of ammonia detectors are installed at different locations inside our installation.</p> <p>Firefighting systems including water curtains system are available at different locations of the installation.</p> <p>During maintenance job in ammonia line/ equipment the line /equipment is isolated, depressurized and ammonia free confirmation is ensured. For hot job the line is purged with nitrogen. PPE like, PVC suit, PVC hand gloves Face Shield BA Set are used for maintenance job</p>
Soda Ash	Received in 50 kg bags godown.	<p>Soda ash is an odourless hygroscopic powder. Its aqueous solution is alkaline. It is received in bulk bags and unloaded in 3P go down (Pioneer work shop). Under normal conditions of use the powder does not pose any health or fire hazard. Safety goggles and PVC hand gloves used to handle this.</p>
Furnace Oil / HSD	Cylindrical tanks.	<p>The oil is a fire hazard. Bulk quantity is stored in cylindrical mild steel storage tanks located in the tank farm away from the plants. Only small quantity for day to day consumption is pumped to the plant. The storage area is provided with a bund to avoid spreading of oil in case of spillage. Suitable firefighting equipment (CO2 foam or dry chemical Fire Extinguishers) are available at the point of consumption. A work permit system ensures that necessary Safety precautions are taken when any maintenance job is undertaken.</p>
Cashew nut oil	Cylindrical tanks.	<p>The oil is a fire hazard. Bulk quantity is stored in cylindrical mild steel storage tanks located in the tank farm away from the plants. Only small quantity for day to day consumption is pumped to the plant. The storage area is provided with a bund to avoid spreading of oil in case of spillage. Suitable firefighting equipment (CO2 foam or dry chemical Fire Extinguishers) are available-at the point of consumption. A work permit</p>

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Indorama India Private Limited.
HALDIA FACTORY

		system ensures that necessary Safety precautions are taken when any maintenance job is undertaken.
Defoamer	Received in 90 Kg carbuoys and stored in open yard.	Persons handling Defoamer are provided with splash goggles and rubber gloves to avoid accidental contact with the chemical.
Lime	Received in 50 Kg bags and stored in covered godown.	These are minor chemicals used in the plant in small quantities and in the Effluent treatment plant and do not require any special precautionary measures for storage or handling only the use of safety goggles and PVC/Rubber hand gloves.
Material	Type of Storage	Precautionary measures taken for storage use and handling
Caustic	Stores in MS tanks.	Received as 48% solution in water. It is a strong alkali and corrosive to tissues. The liquid is received in road tankers and unloaded into MS tanks using pumps. The solution is pumped to the plant for consumption. For safety reasons manual handling is minimised. Persons handling Caustic Lye are provided with splash goggles and rubber gloves to avoid accidental contact with the chemical. Work permit system is used for necessary Safety precautions are taken when any maintenance job is undertaken.
Phosphoric Acid (54% P ₂ O ₅)	Vertical cylindrical tanks.	It is a raw material for the manufacture of DAP. Personal protective equipment provided to prevent direct contact. The chemical does not pose any major health or fire hazard. Splash goggles and PVC hand gloves are used to handle this chemical.
MOP(Murrieta of Potash)	Covered bulk storage at plant and docksite and 3P go down	MOP is mechanically unloaded from the ship and to the shed at docksite for storage using Dumpers. From the docksite it is brought to the factory and 3P go down in dumpers. A Payloader is used for charging the material for process consumption. Manual handling is avoided even though the material is neither toxic nor a fire hazard. It is stored in a covered shed/covered way to prevent contamination with water and wind losses.
China clay	Covered bulk storage at plant	It is a raw material for the manufacture of DAP. The chemical does not pose any major health or fire hazard
Low grade Coal	Covered bulk storage at plant	It is used as fuel to the coal fired burner at DAP1. As such the coal granule does not pose any major health or fire hazard.

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HALDIA FACTORY**

		Personal protective equipment like nose mask /dust mask provided to prevent inhalation of coal dusts to the people working over there.
Alum	Covered bulk storage at plant	These are minor chemicals used in the Effluent treatment plant in small quantities do not require any special precautionary measures for storage or handling except safety goggles and hand gloves.
Biomass briquette	Covered bulk storage at plant	It is used as fuel to the hot air generator of DAP2 plant. The bio-mass briquette does not pose any major health hazard. Adequate fire extinguishers are kept near-by to take care of possible fire hazard. Cautionary display has been put against naked flame and smoke in the vicinity of storage area. Fire hydrant line is extended to the surroundings of the plant for ready use in emergency.
Ammonium Sulphate	Covered storage for material packed in 50 kg HDPE bags.	It is used in Manufacturing of NP 20-20 . White powder salt, stored in 50 Kg HDPE bags, hygroscopic in nature. Does not have any major health hazard. On contact with skin irritation may occur

INTERMEDIATES AND FINISHED PRODUCTS PRODUCED

Material	Type of Storage	Precautionary measures taken for storage use and handling
Sulphuric Acid	Cylindrical MS Storage tanks	Non-flammable liquid, highly acidic, toxic and corrosive in nature. The product for Sulphuric Acid plant is stored in 3 Nos. 750 MT capacity each MS storage tanks and one 3500 MT MS storage tank. It is a raw material for the manufacture of Phosphoric Acid. The acid is transferred from the storage tanks to SSP and DAP Plants using pumps. Proper personal protective equipment like goggles, hand gloves, safety shoes and PVC suit etc. are used to avoid contact. Eye fountains, safety shower and fire hydrant system have been provided for additional safety.
Di-ammonium Phosphate	Covered bulk storage. Covered storage for material packed in 50 kg HDPE bags.	Non-toxic, non-flammable granular solid. The chemical does not pose any major health or fire hazard.



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