KURITA AQUACHEMIE SAUDIARABIA COMPANY (KASA) KURITA AQUACHEMIE FZE (KAFE)

AquaChemie

Record Ref No :- HSE-HRA-F01	Version:- 03
Date	01/04/2023

RISK Register

Activity: Storage, Handling,Supply and Transport of Commodity and Bulk Chemicals | **Location - Chemical Warehouse/ Customer Site** | **Prepared by: Narayanan Krishnan**

No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
TRANSPORTATION ACTIVITY										
1	**a) Receiving of Chemicals from Port to**	(a) Onland Transporting (Driving) - Possible to met	1	3	1	3	M	1. Qualified Driver are used for deliveries with valid drivers licence	Low	
								2. Fit to Work		
								3. Defensive driving training for drivers		
								4. Transportation of Dangerous Goods and Hazardous Materials by Road - Awareness		
								5. Compliance with Road Transport Policy		
								6. Vehicles shall be installed with IVMS system		
								7. RAG report shall be monitored and corrective actions shall be taken base on the		
								8. Preventive maintenance shall be taken for all of the vehicle used for delivery		
		(b) Onland Transporting (Driving) - Possible to met	1	3	1	3	M	1. Life saving rules shall be followed	Low	
								2. Compliance with Road Transport Policy		
		(c) Onland Transporting (Driving) - Chemical fire and	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2.Avoid source of ignition (e.g.,lighter,mobile,etc)		
								3. Used of Respiratory protection		
								4. Qualified Emergency response team in case of Minor fire		
								5. In case of major spill/uncontrolled incident call 999		

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
		(d.) Onland Transporting (Driving) - Chemical spill	1	3	1	3	M	1.Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment		
								3. Qualified Emergency response team in case a Minor spill		
								4. In case of major spill /uncontrolled situation call 999		
		(d.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Use of chemical respiratory mask w/ cartridge	Low	
		(d.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical resistant coverall,suit,gloves,and gumboots	Low	
		(d.3) Eye irritation or corrosion - due to splash of chemical	1	3	2	6	M	1. Use of helmet w/ faceshield and chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(e)Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(f) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Buddy system or provide work interval operation based on the situation		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3 .Wear white and light weight under shirt as much as possible		
								4. Drink plenty of water regularly to avoid the dehydration		
								5.Implementation of summer working hours as per Govt.regulation		
		(g) **Stress** Physiological factors - eg., long working hours, lack of	1	3	1	3	M	1. Avoid excessive work	Low	
								2.Buddy system or provide work interval operation based on the situation		
								3.Sufficient sleep at least 8 hrs.		
								4. Healthy life style/diet		
		(g.1) Environmental factors - eg.,bad condition of work environment ,unhygenic work	1	3	2	6	M	1.Good housekeeping	Low	
								2.Good working facilities		
								3.Sufficient lighting at work area		
								4. Avoid excessive noise in workplace		
		(h)Environmental hazard due to air, land and water contamination	1	3	1	3	M	1.Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2. Use of appropriate PPE's.		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								5.In case of major/uncontrolled incident call 999		
	(b) Delivering of Chemical (ISO tank,IBC's, and Powder)	(a) Onland Transporting (Driving) - Possible to met with incidents or may it be	1	3	1	3	M	1. All personnel involved in this operations shall trained, experience and competent	Low	
								2. Valid licence for all of the involved operators		
								3. Fit to Work		
								4. Transportation of Dangerous Goods and Hazardous Materials by Road - Awareness Training		
								5. Compliance with Road Transport Policy		
								6. Vehicles shall be installed with IVMS system		
								7. RAG report shall be monitored and corrective actions shall be taken base on the report		
								8. Training for all of the following personnels involved in this activity shall be taken through 3rd Party training provider:		
								9. Speed limit shall be followed (20 Kph) - VGE premises		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								10. Barricade the area of work place with warning sign		
								11. Close supervision		
								12. Preventive maintenance shall be taken for all of the vehicles and equipments used for this operations		
		(b) Onland Transporting (Driving) - Possible to met with incidents by using	1	3	1	3	M	1. Life saving rules shall be followed	Low	
								2. Compliance with Road Transport Policy		
		(c) Onland Transporting (Driving) - Chemical fire and release of Toxic fumes might	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2.Avoid source of ignition (e.g.,Lighter,mobile,etc)		
								3. Use of respiratory protection		
								4. Qualified emergency response team in case of minor fire		
								5. In case major/ uncontrolled incident call 999		
		(d.) Onland Transporting (Driving) - Chemical spill might be happen	1	3	1	3	M	1.Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3. Qualified emergency response team in case of minor spill		
								4. In case of major spill/ uncontrolled incident call 999		
		(d.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	1	3	M	Use of chemical respiratory mask w/ cartridge	Low	
		(d.2)Skin irritation or corrosion - due to splash of chemical	1	4	1	4	M	Use of chemical resistant coverall,suit,gloves,and gumboots	Low	
		(d.3)Eye irritation or corrosion due to splash of chemical	1	3	1	3	M	1. Use of helmet w/ faceshield and chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(e)Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(f) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Buddy system or provide work interval operation based on the situation		
								3 .Wear white and light weight under shirt as much as possible		
								4. Drink plenty of water regularly to avoid the dehydration		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								5.Implementation of summer working hours as per Govt.regulation		
		(g) **Stress** Physiological factors - eg., long working hours, lack of	1	3	1	3	M	1. Avoid excessive work	Low	
								2.Buddy system/provide work interval operation if needed		
								3.Sufficient sleep at least 8 hrs.		
								4. Healthy life style/diet		
		(g.1) Environmental factors - eg.,bad condition of work environment ,unhygenic work	1	3	2	6	M	1.Good housekeeping	Low	
								2.Good working facilities		
								3.Sufficient lighting at work area		
								4. Avoid excessive noise in workplace		
		(h)Environmental hazard due to air, land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's.		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								4.In case of major/uncontrolled incident call 999		
		(i.) Onland Transporting (Driving) - Possible to met with incidents while driving	1	3	1	3	M	1. Qualified Driver are used for deliveries with valid drivers licence	Low	
								2. Fit to Work		
								3. Defensive driving training for drivers		
								4. Compliance with Road Transport Policy		
								5. Life saving rules shall be followed		
								6. IVMS shall be installed to the vehicle		
UNLOADING AND LOADING OF CHEMICALS										
2	**a) Unloading of Chemicals from Trailer truck to Chemical**	(a) Incident may happen due to wrong operation or mechanical failure, may it be	1	3	1	3	M	1. All personnel involved in this operations shall trained, experience and competent	Low	
								2. Valid licence for all of the involved operators		
								3. 3rd Party inspection cert. for Stacker equipment and ISO tank		
								4. Training for all of the following personnels involved in this activity shall be taken through 3rd Party training provider:		

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								5. Speed limit shall be followed (20 Kph)		
								6. Barricade the area of work place with Warning sign		
								7. Closed supervision		
								8. Preventive maintenance shall be taken for all of the vehicle used for this operations		
		(b) Possible to met with incidents by using mobile telephone during operations	1	3	1	3	M	1. Life saving rules shall be followed	Low	
								2. Compliance with Road Transport Policy		
		(c) Chemical fire and release of Toxic fumes might be happen	1	4	1	4	M	1.Compliance with AC-HSE- PRO Emergency Response Procedure for Chemical Handling	Low	
								2.Avoid source of ignition (e.g.,Lighter,mobile,etc)		
								3. Use of Respiratory protection		
								4. Qualified Emergency response team in case of Minor fire		
								5. In case major/ uncontrolled incident call 999		
		(d) Chemical spill might be happen	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2. Use of secondary containment		
								3. Qualified Emergency response team in case a Minor spill		
								4. In case of major spill/ uncontrolled incident call 999		
		(d.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Use of chemical respiratory mask w/ cartridge	Low	
		(d.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical resistant coverall,suit,gloves,and gumboots	Low	
		(d.3) Eye irritation or corrosion due to splash of chemical	1	3	2	6	M	1. Use of helmet w/ faceshield and chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(e)Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(f) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Buddy system or provide work interval operation based on the situation		
								3 .Wear white and light weight under shirt as much as possible		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								4. Drink plenty of water regularly to avoid the dehydration		
								5.Implementation of summer working hours as per Govt.regulation		
		(g) **Stress** Physiological factors - eg., long working hours, lack of	1	3	1	3	M	1. Avoid excessive work	Low	
								2.Buddy system/provide work interval operation if needed		
								3.Sufficient sleep at least 8 hrs.		
								4. Healthy life style/diet		
		(g.1) Environmental factors - eg.,bad condition of work environment ,unhygenic work	1	3	2	6	M	1.Good housekeeping	Low	
								2.Good working facilities		
								3.Sufficient lighting in work area		
								4. Avoid excessive noise in workplace		
		(h) Environmental hazard due to air, land and water contamination	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's.		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								5.In case of major/uncontrolled incident call 999		
	b) Unloading of Chemicals from Trailer Truck to Chemical	(a) Incident may happen due to wrong operation or mechanical failure, may it be	1	3	1	3	M	1. All personnel involved in this operations shall trained, experience and competent	Low	
								2. Valid licence for all of the involved operators		
								3. 3rd Party inspection cert. for Forklift equipment		
								4. Good ventilations and lightning inside of chemical warehouse		
								5. Racking system		
								6. Training for all following personnels involved in this activity shall be taken through 3rd Party training provider:		
								7. Speed limit shall be followed (20 Kph) -AC premises		
								8. Barricade the area of work place with Warning sign		
								9. Ensure the truck is stopped and both sides of tyres are chocked during unloading		
								10. Close supervision		

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								11. Preventive maintenance shall be taken for all of the vehicle used for this operations		
		(b) Possible to met with incidents by using mobile telephone during operations	1	3	2	6	M	1. AC Life saving rules shall be followed	Low	
								2. Compliance with Road Transport Policy		
		(c) Chemical fire and release of Toxic fumes might be happen	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2.Avoid source of ignition (e.g.,Lighter,mobile,etc)		
								3. Use of respiratory protection		
								4. Qualified Emergency response team in case of minor fire		
								5. In case major/ uncontrolled incident call 999		
		(d.) Chemical spill might be happen	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment		
								3. Qualified Emergency response team in case a minor spill		
								4. In case of major spill/ uncontrolled incident call 999		

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
		(d.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Used of chemical respiratory mask w/ cartridge	Low	
		(d.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical resistant coverall,suit,gloves,and gumboots	Low	
		(d.3) Eye irritation or corrosion due to splash of chemical	1	3	1	3	M	1. Use of helmet w/ faceshield and chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(e) Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(f) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Buddy system or provide work interval operation based on the situation		
								3 .Wear white and light weight under shirt as much as possible		
								4. Drink plenty of water regularly to avoid the dehydration		
								5.Implementation of summer working hours as per Govt.regulation		
		(g) **Stress** Physiological factors - eg., long working hours, lack of	1	3	1	3	M	1. Avoid excessive work	Low	

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2.Buddy system/provide work interval operation if needed		
								3.Sufficient sleep at least 8 hrs.		
								4. Healthy life style/diet		
		(g.1) Environmental factors - eg.,bad condition of work environment ,unhygenic work	1	3	1	3	M	1.Good housekeeping	Low	
								2.Good working facilities		
								3.Sufficient lighting in work area		
								4. Avoid excessive noise in workplace		
		(h) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's.		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								5.In case of major/uncontrolled incident call 999		
	a) Loading of Chemicals from Chemical Warehouse to Trailer	(a) Incident may happen due to wrong operation or mechanical failure, may it be	1	3	1	3	M	1. All personnel involved in this operations shall trained, experience and competent	Low	

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2. Valid licence for all of the involved operators		
								3. 3rd Party inspection cert. for Stacker equipment and ISO tank		
								4. Training for all following personnels involved in this activity shall be taken through 3rd Party training provider:		
								5. Speed limit shall be followed (20 Kph)		
								6. Barricade the area of work place with warning sign		
								7. Close supervision		
								8. Preventive maintenance shall be taken for all of the vehicle used for this operations		
		(b) Possible to met with incidents by using mobile telephone during operations	1	5	1	5	M	1. Life saving rules shall be followed	Low	
								2. Compliance with Road Transport Policy		
		(c) Chemical fire and release of Toxic fumes might be happen	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2.Avoid source of ignition (e.g.,Lighter,mobile,etc)		
								3. Use of respiratory protection		

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								4. Qualified Emergency response team in case of minor fire		
								5. In case major/ uncontrolled incident call 999		
		(d.) Chemical spill might be happen	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment		
								3. Qualified Emergency response team in case a Minor spill		
								4. In case of major spill/ uncontrolled incident call 999		
		(d.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Use of chemical respiratory mask w/ cartridge	Low	
		(d.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical resistant coverall,suit,gloves,and gumboots	Low	
		(d.3) Eye irritation or corrosion due to splash of chemical	1	3	2	6	M	1. Use of helmet w/ faceshield and chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(d.4) Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		

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RISK Register

Activity: Storage, Handling,Supply and Transport of Commodity and Bulk Chemicals | **Location - Chemical Warehouse/ Customer Site** | **Prepared by: Narayanan Krishnan**

No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
		(e) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Buddy system or provide work interval operation based on the situation		
								3 .Wear white and light weight under shirt as much as possible		
								4. Drink plenty of water regularly to avoid the dehydration		
								5.Implementation of summer working hours as per Govt.regulation		
		(f) **Stress** Physiological factors - eg., long working hours, lack of	1	3	1	25	M	1. Avoid excessive work	Low	
								2.Buddy system/provide work interval operation if needed		
								3.Sufficient sleep at least 8 hrs.		
								4. Healthy life style/diet		
		(f.1) Environmental factors - eg.,bad condition of work environment ,unhygenic work	1	3	1	25	M	1.Good housekeeping	Low	
								2.Good working facilities		
								3.Sufficient lighting in work area		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								4. Avoid excessive noise in workplace		
		(g) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's.		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								5.In case of major/uncontrolled incident call 999		
	b) Loading of Chemicals from Chemical Warehouse to Trailer	(a) Incident may happen due to wrong operation or mechanical failure, may it be	1	3	1	3	M	1. All personnel involved in this operations shall trained, experience and competent	Low	
								2. Valid licence for all of the involved operators		
								3. 3rd Party inspection cert. for Forklift equipment		
								4. Good ventilations and lightning inside of chemical warehouse		
								5. Racking system		
								6. Training for all following personnels involved in this activity shall be taken through 3rd Party training provider:		
								7. Speed limit shall be followed (20 Kph) - AC premises		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								8. Ensure the Truck is stopped and both sides of tyres are chocked during unloading		
								9. Barricade the area of work place with Warning sign		
								10. Closed supervision		
								11. Preventive maintenance shall be taken for all of the vehicle used for this operations		
		(b) Possible to met with incidents by using mobile telephone during operations	1	10	2	20	M	1. Life saving rules shall be followed	Low	
								2. Compliance with Road Transport Policy		
		(c) Chemical fire and release of Toxic fumes might be happen	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2.Avoid source of ignition (e.g.,Lighter,mobile,etc)		
								3. Use of Respiratory protection		
								4. Qualified Emergency response team in case of Minor fire		
								5. In case major/ uncontrolled incident call 999		
		(d.) Chemical spill might be happen	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	

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Activity: Storage, Handling,Supply and Transport of Commodity and Bulk Chemicals | **Location - Chemical Warehouse/ Customer Site** | **Prepared by: Narayanan Krishnan**

No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2. Use of secondary containment		
								3. Qualified Emergency response team in case a Minor spill		
								4. In case of major spill/ uncontrolled incident call 999		
		(d.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Use of chemical respiratory mask w/ cartridge	Low	
		(d.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical resistant coverall,suit,gloves,and gumboots	Low	
		(d.3) Eye irritation or corrosion due to splash of chemical	1	3	2	6	M	1. Use of helmet w/ faceshield and chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(e) Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(f) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Buddy system or provide work interval operation based on the situation		
								3 .Wear white and light weight under shirt as much as possible		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								4. Drink plenty of water regularly to avoid the dehydration		
								5.Implementation of summer working hours as per Govt.regulation		
		(g) **Stress** Physiological factors - eg., long working hours, lack of	1	3	1	25	M	1. Avoid excessive work	Low	
								2.Buddy system/provide work interval operation if needed		
								3.Sufficient sleep at least 8 hrs.		
								4. Healthy life style/diet		
		(g.1) Environmental factors - eg.,bad condition of work environment ,unhygenic work	1	3	1	25	M	1.Good housekeeping	Low	
								2.Good working facilities		
								3.Sufficient lighting in work area		
								4. Avoid excessive noise in workplace		
		(h) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's.		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								5.In case of major/uncontrolled incident call 999		
TRANSFER OF CHEMICALS										
4	**a) Road Tanker to IBC's**	(a) Incident may happen due to wrong operation or mechanical failure, may it be	1	10	1	50	**M**	1. All personnel involved in this operations shall trained, experience and competent	**Low**	
								2. Valid licence for Road tanker driver		
								3. Ensure that all materials used in this operation is approriate and all are in good condition following:		
								4. Ensure the Truck is stopped and both sides of tyres are chocked during unloading		
								5. Barricade the area of work place with Warning sign		
								6. Close supervision		
								7. Preventive maintenance shall be taken to all of the materials used in operations		
		(b) Chemical fire and release of Toxic fumes might be happen during operations	1	3	2	6	**M**	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	**Low**	
								2. Qualified Emergency response team in case of Minor fire		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3.Avoid source of ignition (e.g.,lighter,mobile,etc)		
								4. Use of Respiratory protection		
								5. In case of uncontrolled situation call 999		
		(c) Chemical spill might be happen during operations	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment		
								3. Qualified Emergency response team in case a Minor spill		
								4. In case of uncontrolled situation call 999		
		(c.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Use of respiratory protection (half face mask w/ cartridge)	Low	
		(c.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical suit,gloves,gumboots	Low	
		(c.3) Eye irritation or corrosion due to splash of chemical	1	3	2	6	M	1. Use of helmet w/faceshield,chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(d) Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving and use safe lifting and moving techniques for heavy or awkward loads	Low	

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(e) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Provide shaded area for work as much as possible		
								3.Buddy system/provide work interval operation based on the situation		
								4 .Wear white and light weight under shirt as much as possible		
								5.Drink plenty of water regularly		
								6.Implementation of summer working hours as per Govt.regulation		
		(f) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's.		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								4. In case of major incident/uncontrolled situation call 999		
	b) Road Tanker to ISO Tank	(a) Incident may happen due to wrong operation or mechanical failure, may it be	1	10	1	50	M	1. All personnel involved in this operations shall trained, experience and competent	Low	

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2. Valid licence for Road tanker driver		
								3. 3rd Party inspection cert. for ISO		
								4. Ensure that all materials used in this operation is approriate and all are in good condition following:		
								5. Ensure the Truck is stopped and both sides of tyres are chocked during unloading		
								6. When ever required to use the fixed ladder on ISO tank , three points of contact must be maintained		
								7. Barricade the area of work place with Warning sign		
								8. Close supervision		
								9. Preventive maintenance shall be taken to all of the materials used in operations		
		(b) Chemical fire and release of Toxic fumes might be happen during operations	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Qualified Emergency response team in case of Minor fire		
								3.Avoid source of ignition (e.g.,Lighter,mobile,etc)		
								4. Use of Respiratory protection		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								5. In case of uncontrolled situation call 999		
		(c) Chemical spill might be happen during operations	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment		
								3. Qualified Emergency response team in case a minor spill		
								4. In case of uncontrolled situation call 999		
		(c.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Use of respiratory protection (half face mask w/ cartridge)	Low	
		(c.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical suit,gloves,gumboots	Low	
		(c.3) Eye irritation or corrosion due to splash of chemical	1	3	2	6	M	1. Use of helmet w/faceshield,chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(d) Ergonomic hazard due to prolong driving,awkward position,vibration	1	3	1	3	M	1.Maintain good posture while driving and use safe lifting and moving techniques for heavy or awkward loads	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(e) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2.Provide shaded area for work as much as possible		
								3.Buddy system/provide work interval operation based on the situation		
								4 .Wear white and light weight under shirt as much as possible		
								5.Drink plenty of water regularly		
								6.Implementation of summer working hours as per Govt.regulation		
		(f) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Used of appropriate PPE's.		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								4. In case of major incident/uncontrolled situation call 999		
	c) ISO Tank to ISO Tank	(a.) Incident may happen due to wrong operations or Mechanical failure	1	10	2	50	M	1. All personnel involved in this operations shall trained, experience and competent	Low	
								2. Valid licence for Road tanker driver		
								3. 3rd Party inspection cert. for ISO		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								4. Ensure that all materials used in this operation is approriate and all are in good condition following:		
								5. Barricade the area of work place with Warning sign		
								6. When required to use the fixed ladder on ISO tank , three points of contact must be maintained		
								7. Close supervision		
								8. Preventive maintenance shall be taken to all of the materials used in operations		
		(b.) Chemical fire and release of Toxic fumes might be happen during operations	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Qualified Emergency response team in case of Minor fire		
								3.Avoid source of ignition (e.g.,Lighter,mobile,etc)		
								4. Use of Respiratory protection		
								5. In case of uncontrolled situation call 999		
		(c.) Chemical spill might be happen during operations	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3. Qualified Emergency response team in case a Minor spill		
								4. In case of uncontrolled situation call 999		
		(c.1) Respiratory irritation due to inhilation of chemical fumes/vapours	1	3	2	6	M	Use of respiratory protection (half face mask w/ cartridge)		
		(c.2) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical suit,gloves,gumboots		
		(c.3) Eye irritation or corrosion due to splash of chemical	1	3	2	6	M	1. Use of helmet w/faceshield,chemical splash goggles		
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(d) Ergonomic hazard due to awkward position while lifting the transfering materials	1	3	1	3	M	1. Learn and use safe lifting and moving techniques for heavy or awkward loads	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(e) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Provide shaded area for work as much as possible		
								3.Buddy system/provide work interval operation based on the situation		
								4 .Wear white and light weight under shirt as much as possible		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								5.Drink plenty of water regularly		
								6.Implementation of summer working hours as per Govt.regulation		
		(f) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								4. In case of major incident/uncontrolled situation call 999		
	d) Bag to Bag	(a) Incident may happen due to wrong operations or mechanical failure of Forklift	1	10	2	50	M	1. All personnel involved in this operations shall trained, experience and competent	Low	
								2. Valid licence for Forklift operator		
								3. 3rd Party inspection cert. for Forklift equipment		
								4. Ensure that all materials used in this operation is approriate and all are in good condition following:		
								5. Barricade the area of work place with Warning sign		
								6. Use of appropriate gloves when handling the sharp object material (cutter)		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								7. Close supervision		
								8. Preventive maintenance shall be taken to all of the materials used in operations		
		(b) Chemical spill might be happen during operations	1	4	2	8	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment (Dip tray)		
								3. Qualified Emergency response team in case of spill (powder)		
		(c) Respiratory irritation due to inhilation of chemical powder	1	3	2	6	M	Use of respiratory protection (half face mask and cartridge w/filters)	Low	
		(c.1) Skin irritation due to splash of chemical	1	3	2	6	M	Use of chemical suit,gloves,gumboots	Low	
		(c.2) Eye irritationr due to contact of chemical powder	1	4	2	8	M	1. Use of helmet w/faceshield,chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(d) Ergonomic hazard due the manual handling or awkward position	1	3	1	3	M	1. Learn and use safe lifting and moving techniques for heavy or awkward loads	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(e) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								2.Provide shaded area for work as much as possible		
								3.Buddy system/provide work interval operation based on the situation		
								4 .Wear white and light weight under shirt as much as possible		
								5.Drink plenty of water regularly		
								6.Implementation of summer working hours as per Govt.regulation		
		(f) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's.		
								3.Qualified Emergency response team for Minor incident (Air,Land,Water)		
								4. In case of major incident/uncontrolled situation call 999		
BLENDING OPERATIONS										
5	**Blending of Chemicals - Adding raw (chemical powder) materials to**	(a) Incident may happen - due to wrong operations or mechanical failure	1	3	2	6	M	1. All personnel involved in this operations shall trained, experience and competent	Low	
								2. 3rd Party inspection cert. for Forklift equipment		

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Activity: Storage, Handling,Supply and Transport of Commodity and Bulk Chemicals | **Location - Chemical Warehouse/ Customer Site** | **Prepared by: Narayanan Krishnan**

No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3. Forklift operation training approved by 3rd Party training provider		
								4. Flow meter calibration certificate shall be taken regularly through 3rd Party agency to ensure the quality of instrument		
								5. Ensure that all materials used in this operation is approriate and all are in good condition following:		
								6. Barricade the area of work place with warning sign		
								7. Use of appropriate gloves when handling the sharp object material (cutter)		
								8. Close supervision		
								9. Preventive maintenance shall be taken to all of the materials used in operations		
		(b) Chemical spill might be happen during operations	1	3	2	6	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment (Dip tray)		
								3. Qualified Emergency response team in case of spill (powder)		
		(c) Respiratory irritation due to inhilation of chemical powder	1	3	2	6	M	Use of respiratory protection (half face mask and cartridge w/filters)	Low	
		(c.1) Skin irritation due to chemical contact	1	3	2	6	M	Use of chemical suit,gloves,gumboots	Low	

KURITA AQUACHEMIE SAUDIARABIA COMPANY (KASA) KURITA AQUACHEMIE FZE (KAFE)

Record Ref No :- HSE-HRA-F01	Version:- 03
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Activity: Storage, Handling,Supply and Transport of Commodity and Bulk Chemicals | **Location - Chemical Warehouse/ Customer Site** | **Prepared by: Narayanan Krishnan**

No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
		(c.2) Eye irritation due to chemical contact	1	3	2	6	M	1. Use of helmet w/faceshield,chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(d) Ergonomic hazard due the manual handling or awkward position	1	3	1	3	M	1. Learn and use safe lifting and moving techniques for heavy or awkward loads	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(e) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Provide shaded area for work as much as possible		
								3.Buddy system/provide work interval operation based on the situation		
								4 .Wear white and light weight under shirt as much as possible		
								5.Drink plenty of water regularly to avoid dehydration		
								6.Implementation of summer working hours as per Govt.regulation		
		(f) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3.Qualified Emergency response team for Minor case (Air,Land,Water)		
								4. In case of major incident/uncontrolled situation call 999		
WASHING OF PACKING MATERIALS										
6	**Washing of Packing Materials (IBC's and Drums)**	(a) Incident may happen due to wrong operations or mechanical failure of Forklift	1	3	2	6	**M**	1. All personnel involved in this operations shall trained, experience and competent	**Low**	
								2. Ensure that the left over chemicals (from IBC's or Drums) from customer sites checked by Chemist prior to collect in designated IBC		
								3. Ensure that pre washing on IBC performed and collected water to be disposed off to designated IBC's, prior to proceed on final		
								4. Ensure that all electrical outlet equipped of GFCI to avoid the electric shock		
								5. Forklift driver shall obtained a valid licence and approprite training from 3rd Party training provider		
								6. Ensure that all materials used in this operation is approriate and all are in good		
								7. Barricade the area of work place with warning sign		
								8. Close supervision		
								9. Preventive maintenance shall be taken to all of the materials used in operations		

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Activity: Storage, Handling,Supply and Transport of Commodity and Bulk Chemicals | **Location - Chemical Warehouse/ Customer Site** | **Prepared by: Narayanan Krishnan**

No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
		(b) Chemical spill might be happen during operations	1	3	2	6	M	1.Compliance with VGE-HSE- PRO-033 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of secondary containment (Dip tray)		
								3. Qualified Emergency response team in case of spill		
		(c) Respiratory irritation due to inhilation of chemical powder	1	3	2	6	M	Use of respiratory protection (half face mask and cartridge w/filters)	Low	
		(c.1) Skin irritation or corrosion due to splash of chemical	1	3	2	6	M	Use of chemical suit,gloves,gumboots	Low	
		(c.2) Eye irritation or corrosion due to splash of chemicals	1	3	2	6	M	1. Use of helmet w/faceshield,chemical splash goggles	Low	
								2. Emergency eye wash and shower - OSHA Regulation 29 CFR Part 1910.151		
		(d) Ergonomic hazard due long driving of Forklift, manual handling or awkward	1	3	1	3	M	1. Learn and use safe lifting and moving techniques for heavy or awkward loads	Low	
								2.Allowed body to rest and perform streches slowly and gentle if needed		
		(e) Heat stress due to exposure in excessive hot weather	1	3	1	3	M	1. Heat Exhaustion/Stress awareness training	Low	
								2.Provide shaded area for work as much as possible		
								3.Buddy system/provide work interval operation based on the situation		

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No.	Hazard	Risk	Risk rating score					Control Measures/ Recovery measures	Residual Risk	Remarks
			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								4 .Wear white and light weight under shirt as much as possible		
								5.Drink plenty of water regularly to avoid dehydration		
								6.Implementation of summer working hours as per Govt.regulation		
		(f) Environmental hazard due to air,land and water contamination	1	3	1	3	M	1. Compliance with HSE-HSEP-02 Emergency Response Procedure for Chemical Handling	Low	
								2. Use of appropriate PPE's		
								3.Qualified Emergency response team in case of incident (Air,Land,Water)		
STORAGE										
7	**Storage of Chemicals**	(a) Fire hazards	1	3	2	6	M	1. The seperation shall be arranged as per UN classified chemicals	Low	AC HSSE Requirements
								2. Good air ventilation (exhaust fan)		
								3. Suitable fire fighting equipment (fire extinguisher/,fire alarm control panel,fire hose reel,smoke detector,heat detector)		
								4. Basic fire fighting training shall be arranged for all of the Fire fighting team		
								5. In case of uncontrolled fire call 999		

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
		(b) Collapse of storage racks due to substandard racks/over loaded materials	1	3	2	6	M	1. Proof Load Test of Beam	Low	
								2. Adhere on required SWL capacity		
								3. Close Supervision		
		(c) Fall of material from height	1	3	2	6	M	1. Suitable PPE (Hard hats) when entering inside of the chemical warehouse	Low	
								2. Storage plan for chemical warehouse		
		(d) Chemical spill might be happen	1	3	2	6	M	Use of secondary containment	Low	
ANY OTHER BUSINESS (AOB)										
	Working with Same Level (Floor/Aisles/Passage	a) Slip due to chemical spill, wet, muddy/greasy shoes	1	3	2	6	M	1) Secondary containment shall be install in all Chemical warehouse	Low	
								2) Install slip resistant floors in high risk areas		
								3)Wear proper footwear with slip resistant.		
		(a.1) Poor Housekeeping	1	3	3	9	M	Maintain good house keeping	Low	
		(a.2) Poor Lightning	1	3	2	6	M	Maintain good lightning	Low	

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
		(b) Trip due to obstacles on aisles/ walkway & work areas.	1	3	3	9	M	Maintain good house keeping (maintain clear/tidy work areas free of obstruction).	Low	
		(b.1) Uneven aisles and passageways	1	3	3	9	M	Aisles and passageways shall be kept clear and in good repair	Low	
	Personnel Working at Height >2 Meter	Personal Injury due to Loss of balance - Personnel may fell down when working at	1	3	3	9	M	1. Work platform, Proper egress/access for the work location.	Low	
								2. Use of ladder		
								3.Use of Safety harness		
								3. Working at heights training		
	Equipment with Moving Parts	Personnel can touch the rotation equipments directly - Engine from delivery trucks	1	3	3	9	M	1. Protection guard for rotating equipments	Low	
	Electrocution	Electrocution, Severe electrical burns, May cause fire incident, may cause even	1	3	4	12	M	1. Ensure only appropriately licensed or registered electricians carry out electrical work	Low	
								2.Ensuring power circuits are protected by the appropriate rated fuse or circuit breaker to prevent overloading		
								3. Ensure that all electrical outlet equipped of GFCI to avoid the electric shock		
	Security Related hazards	Theft - Asset Loss/ Chemical Lost	1	3	3	9	M	1. Competent,experience and trained Security shall be posted	Low	
								2. Emergency response plan be stablished		

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			# of peoples affected	Severity	Probability	Risk Rating	Significant Risk			
								3. Emergency contact number shall be posted in all visible area		
								4. Emergency response team shall be available at all time		
	Biological Hazard	Biological hazards **(Infectious)** Infected by other personnel who has	1	3	4	12	**M**	1.Regular health check up	**Low**	
								2.Education programs for workers about personal hygiene practices		
								3.Good sanitary conditions		
								4.Avoid person to person by putting something in the mouth that has been contaminated with the feces of a person with hepatitis A/		
								5. Use of disposable utensils		
								6.Avoid undercooked food or raw food		
		Biological hazards **(Related to Animal and Insect) -** Rabies, Insect bites etc.						1. Ensure that all materials properly closed/covered		
								2. Close supervision to all warehouses		