#### HENKEL ADHESIVE TECHNOLOGIES INDIA PVT. LTD.

PFR for Environmental Clearance (EC) of proposed green field project for manufacturing of Adhesives, Sealants and surface treatment products at Plot No.: D-4/2, MIDC Kurkumbh, Dist. Pune, Maharashtra.

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Name of	Proposed green field project for manufacturing of Adhe	Proposed green field project for manufacturing of Adhesives, Sealants					
Publication	and surface treatment products at Plot No.: D-4/2 MIDC Kurkumbh,						
	Dist. Pune, Maharashtra.						
Project	Report 1 Version 1 Relea	1 Version 1 Released February					
Number	No.	2020					
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#### **EXECUTIVE SUMMARY**

M/s. HENKEL ADHESIVE TECHNOLOGIES INDIA PVT. LTD. (Henkel) is a subsidiary of Henkel AG & Co. KGA, Germany. In India, Henkel is the market leader in Adhesives, Sealants and Surface Treatments for consumers, craftsmen and industrial applications. Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Homecare, Cosmetics & Toiletries and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions both in the consumer and industrial businesses with well-known brands such as Schwarzkopf and Loctite. Indian business is headquartered in Mumbai. Henkel has a long tradition of well balanced portfolio of international, regional and local brands. Henkel adhesive products provide solutions for whole spectrum from manufacturing anaerobic adhesive, cyanoacrylate adhesive, silicon sealants, polymer composites, solvent based, solvent free to cold seal laminating adhesive used in flexible packaging industry. Henkel solutions are used in diverse segments ranging from manufacturing, electronics, automotive, aerospace to biomedical industries.

Henkel realizes the importance of good product quality and the need to be market sensitive & also believe that it is a must to produce goods efficiently and economically and in a way that it imposes the least cost on the environment. The quality consciousness is reflected in growing list of satisfied customers in India as well as overseas.

Founded in 1876, Henkel holds globally leading market positions both in the consumer and industrial businesses with well-known brands such as Schwarzkopf and Loctite.

- Corporate Headquarters- Dusseldorf, Germany
- Carsten Knobel Chairman of the Management Board
- Shilip Kumar Country President (Henkel India)

Indian business is headquartered in Mumbai. Henkel has a long tradition of well balanced portfolio of international, regional and local brands. Henkel adhesive products provide solutions for whole spectrum from manufacturing anaerobic adhesive, cyanoacrylate adhesive, silicon sealants, polymer composites, solvent based, solvent free to cold seal laminating adhesive used in flexible packaging industry. Henkel

solutions are used in diverse segments ranging from manufacturing, electronics, automotive, aerospace to biomedical industries. Well known brands in India include Loctite, Teroson, Bonderite, Technomelt & Aquence.

The company acknowledges it is responsible towards environmental issues and hence it is also investing in developing pollution mitigation measures to keep the impact due to proposed activities to the minimum.

Now, Henkel is looking forward to setting up a new unit at Plot No. D-4/2, MIDC Kurkumbh. As per the EIA Notification S.O. 1533 dated September 14th, 2006 proposed project requires prior environmental clearance for establishment. As per the schedule of EIA notification 2006, proposed green field activity is classified as Synthetic Organic Chemicals Industry 5(f) and category B1. Category B1 projects requires environmental studies for preparation of EIA for its appraisal prior to grant of environmental clearance. As the project is located in a notified industrial area it is exempted from public hearing as per MoEFCC circular no J-11011/321/2016-IA-II (I) dated 27<sup>th</sup> April 2018.

# **Project Synopsis:**

Sr. No	Parameters	Description					
1.	Category as per EIA Notification	5 (f) B1					
2.	Latitude	18°24'25.15"N					
3.	Longitude	74°30'14.84"E					
4.	Proposed Production Capacity	Total Production Capacity	148250 TPA				
5.	Total Plot Area	26400.00 sq. m.					
6.	Green Belt Area	8713 (33 % of total plot are	ea)				
7.	Fresh Water Requirement	Total Fresh Water Requiren	nent:- 239 CMD				
8.	Effluent Quantity (Trade + Domestic)	Trade Effluent:- 43 CMD Domestic:- 27 CMD Total: 70 CMD					
9.	Trade Effluent Treatment	Trade effluent 43 CMD will be collected in collection pit & it will be pumped to the existing ETP of Henkel Adhesive Technologies premises located at plot No. D-4/1. The pumped water from Henkel D-4/2 will be treated in conventional ETP Consisting of Primary, secondary and tertiary Treatment. After treatment it will be sent to CETP Kurkumbh. The Capacity of ETP is 150 CMD & it is sufficient to treat total effluent of 138 CMD which consist 43 CMD effluent from Henkel D- 4/2, 85 CMD from sister concern industry Henkel D-4/1 & 10 CMD from Henkel Anand.					
10.	Domestic Waste water Treatment	Domestic wastewater will be treated in STP of capacity 90 CMD of Henkel Adhesive Technologies premises located at plot No. D-4/1 which is adjacent to the plot D-4/2. Treated wastewater will be recycled and reused for the gardening in non-monsoon season and for utilities in monsoon season after disinfection.					
	Fuel requirement at	Fuel T	otal Fuel Quantity				
11.	full load	FO	553 Kg/Hr				
		HSD	1300 Lit/Hr				
12.	Power Requirement	Power required as Connected load: 6531 KW Power required as operation load: 4467 KVA					
	Dispersion of	Utilities Capacity Stac		Stack height			
13.	emission for Boiler	Proposed boiler 1 No.	3 TPH	35 m			
	& Thermopac	Proposed Thermopack   2500000 Kcal/Hr   40 M					
14.	Dispersion of emission DG Sets	Proposed: 2 No. D.G Set= Stack Height: 30 M above					

Sr. No	Parameters	Description
15.	Work Force	Total: 650 workers
16.	Total Capital Cost the project	Total:97.01 Cr.

# 1.0 Introduction of the project

# 1.1 Introduction of the Project

M/s. HENKEL ADHESIVE TECHNOLOGIES INDIA PVT. LTD. (Henkel) is a subsidiary of Henkel AG & Co. KGA, Germany. In India, Henkel is the market leader in Adhesives, Sealants and Surface Treatments for consumers, craftsmen and industrial applications. Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Homecare, Cosmetics & Toiletries and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions both in the consumer and industrial businesses with well-known brands such as Schwarzkopf and Loctite. Indian business is headquartered in Mumbai. Henkel has a long tradition of well balanced portfolio of international, regional and local brands. Henkel adhesive products provide solutions for whole spectrum from manufacturing anaerobic adhesive, cyanoacrylate adhesive, silicon sealants, polymer composites, solvent based, solvent free to cold seal laminating adhesive used in flexible packaging industry. Henkel solutions are used in diverse segments ranging from manufacturing, electronics, automotive, aerospace to biomedical industries.

Henkel realizes the importance of good product quality and the need to be market sensitive & also believe that it is a must to produce goods efficiently and economically and in a way that it imposes the least cost on the environment. The quality consciousness is reflected in growing list of satisfied customers in India as well as overseas.

Now, Henkel is looking forward by setting up a new unit at Plot D-4/2 MIDC Kurkumbh. The company acknowledges it is responsible towards environmental issues and hence it is also investing in developing pollution mitigation measures to keep the impact due to new activity to the minimum.

As per the EIA Notification S.O. 1533 dated September 14th, 2006 proposed project requires prior environmental clearance for establishment. As per the schedule of EIA notification 2006, proposed activity is classified as Synthetic Organic Chemicals Industry 5(f) and category B1. Category B1 projects requires environmental studies for preparation of EIA for its appraisal prior to grant of environmental clearance. As the

project is located in a notified industrial area it is exempted from public hearing as per MoEFCC circular no J-11011/321/2016-IA-II (I) dated 27th April 2018.

# 1.2 Introduction of the Project Proponent

List of directors along with their designation is given in Table 1-1

Table 1-1: List of Directors and their designations

Name of the Director	Position
Shilip Sant Kumar	Director
Sundararaman Ramakrishanan Iyer	Director
Nuri Erdem Kocak	Director
Man Ying Cheung	Director
Bappa Bandopadhyay	Director

# 1.3 Brief description of nature of the project

The proposed green field project will be carried out at Plot No. D-4/2 at MIDC Kurkumbh, Dist. Pune, on land ad measuring 26400.00 Sq.m; total production capacity will be 148250 TPA.

# 1.4 Need for the project and its importance to the country and or region

At present with the exception of two all other manufacturing units, has limited space for expansion. This project aims at constructing a world class adhesive manufacturing factory with proximity to port and the dominant markets. The projective objective is to build state of art manufacturing facility near Ganesha Kurkumbh site by means of adopting latest technologies for Anaerobic, Epoxy, silicone, Frekote, Cyano acrylates, activator and water base products.

# 1.5 Demands-Supply Gap

Since western and northern India together will contribute to 74 % of total demand (for all products) company plan to build a proposed project to cater to their customers. Company plans to double the productions volume by 2030 to meet the demand forecasted. The new plant would cater to more than 50% of the total production volumes.

### 1.6 Imports vs. Indigenous Production

Indigenous production will help improve availability of material in timely and competitive manner to our customer in India

# 1.7 Domestic / Export Markets

Henkel's operations in Kurkumbh would have a positive economic impact. Henkel SHE standards (Safety, Health & Environment) would bring global standards in Pune and will have positive impact on other industries around it. Operation in Kurkumbh would boost the employment prospects for direct employees working in factory, as well as the external resources, who are indirectly related.

#### 1.8 Employment Generation due to the project

The proposed project requires manpower of 650 numbers.

# 2.0 PROJECT DESCRIPTION

# 2.1 Type of Project

Proposed green field project is for manufacturing of Adhesives and sealants falling in category 5(f) B-1 of EIA notification 2006. Total production capacity of the project will be 148250 TPA product.

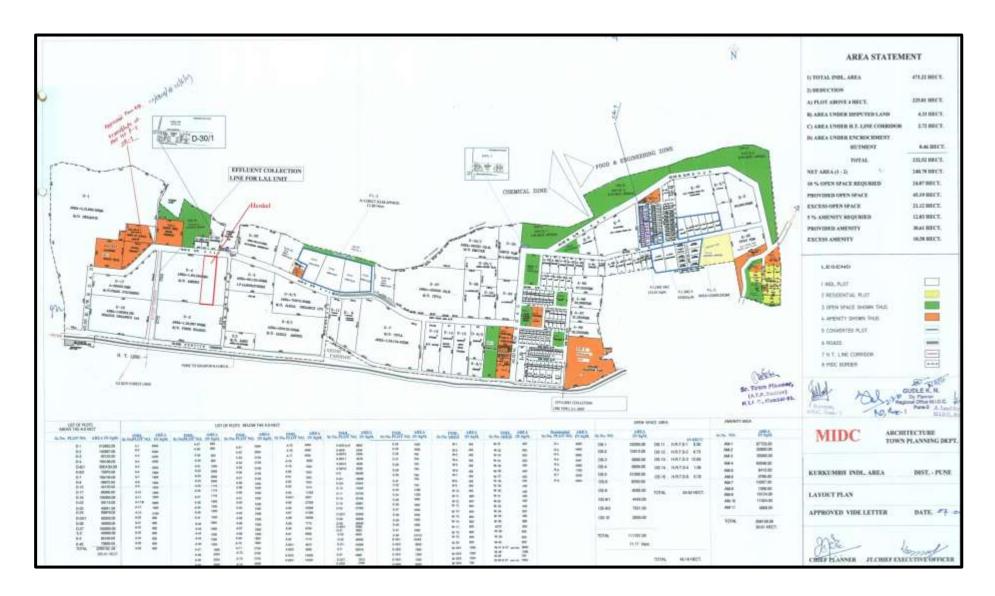
# 2.2 Project Location

The proposed project is located at Plot D-4/2, Kurkumbh MIDC area, Tal- Daund Dist-Pune Maharashtra. The site is located adjacent to State Highway no. 9 (Pune – Solapur Highway) 500 M towards west.

Figure 2-1: Satelite Image of the Site



Figure 2-2: MIDC Map



The project site is situated in Kurkumbh MIDC. It is a notified industrial area where the land is owned by Maharashtra Industrial Development Corporation (MIDC) and leased to the Company. The land is meant for industrial activity.

**Land Ownership:** Land is owned by Maharashtra Industrial Development Corporation (MIDC) and leased to the Company for 99 years.

# 2.3 Details of alternate sites considered and the basis of selecting the proposed site

proposed synthetic organic chemicals manufacturing unit of Henkel is located on MIDC area Kurkumbh. Only as a part of growth policy Henkel wish to start up production activity at proposed new site to remain in a business and retain the leadership.

Since the proposed site has sufficient land available and owned by proponent. The following points were considered for selecting the proposed site:

- Location is within the established notified industrial estate
- Availability of common infrastructural facilities of the industrial estate
- · Availability of water supply in the industrial estate
- Availability of un-interrupted power supply in the industrial estate
- Nearby availability of CETP for the disposal of treated effluent
- In close vicinity of sister industry for the transportation of finished goods

Hence alternate sites were not considered.

# 2.4 Size or Magnitude of Operation

The products manufactured and their capacities proposed are shown in below **Table** 

# 2.1

**Table 2-1: List of Products** 

Adhesives Products  Adhesives Products  Poly vinyl acetate is consumed as one of the raw material for preparing Water Based Adhesive blends & this quantity is already added in quantity of following blends  A. Adhesives Blends  Ethyl Cyanoacrylate  Acrylates  Acrylic resin  Alkoxyethyl Cyanoacrylate  Amine  Chloroprene Rubber/Solvent  Dimethacrylate Ester  Epoxy  Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	31500 28 92 71 1
Poly vinyl acetate is consumed as one of the raw material for preparing Water Based Adhesive blends & this quantity is already added in quantity of following blends  A. Adhesives Blends  Ethyl Cyanoacrylate  Acrylates  Acrylic resin  Alkoxyethyl Cyanoacrylate  Amine  Chloroprene Rubber/Solvent  Dimethacrylate Ester  Epoxy  Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	28 92 71
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Ethyl Cyanoacrylate  Acrylates  Acrylic resin  Alkoxyethyl Cyanoacrylate  Amine  Chloroprene Rubber/Solvent  Dimethacrylate Ester  Epoxy  Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	92 71
Acrylates Acrylic resin Alkoxyethyl Cyanoacrylate Amine Chloroprene Rubber/Solvent Dimethacrylate Ester Epoxy Epoxy 1C Adhesives Ethyl Cyanoacrylate Hot Melt Adhesive	92 71
Acrylic resin  Alkoxyethyl Cyanoacrylate  Amine  Chloroprene Rubber/Solvent  Dimethacrylate Ester  Epoxy  Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	71
Alkoxyethyl Cyanoacrylate  Amine  Chloroprene Rubber/Solvent  Dimethacrylate Ester  Epoxy  Epoxy  Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	
Amine Chloroprene Rubber/Solvent Dimethacrylate Ester Epoxy Epoxy Epoxy 1C Adhesives Ethyl Cyanoacrylate Hot Melt Adhesive	1
Chloroprene Rubber/Solvent  Dimethacrylate Ester  Epoxy  Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	
Dimethacrylate Ester  Epoxy  Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	3
Epoxy Epoxy 1C Adhesives Ethyl Cyanoacrylate Hot Melt Adhesive	1918
Epoxy 1C Adhesives  Ethyl Cyanoacrylate  Hot Melt Adhesive	571
Ethyl Cyanoacrylate  Hot Melt Adhesive	3224
Hot Melt Adhesive	158
	951
	20000
Methacrylate	2
Methacrylate Ester	191
Methacrylate Monomers	47
Methyl Cyanoacrylate	21
Modified Acrylate	3
Modified Acrylic	5
Poly Urethene	752
Polyacrylate	8

Polyurethane Resin and Isocyanate	3
Pressure Sensitive Adhesives	28000
PUR Melt Adhesive	15000
Solvent Based Adhesive	18099
Urethane Methacrylate	87
Urethane Methacrylate Ester	15
Water Based Adhesive	35000
Sub Total	124250
B. Sealants Beinds	
Acetoxy silicone	80
LiquidApplied Sound Deadeners	10000
Neutral Cure Silicone	323
Oxime silicone	1467
Silicone	130
Sub Total	12000
Surface Treatment Products & Blends	
Perchloro silane is consumed as one of the raw material for	
preparing Solvent Based Polymer blends & this quantity is	130
already added in quantity of following blends	
C. Surface Treatment Blends	
Aldehyde Amine Condensate	0.4
Aliphatic Amine	0.6
Amine	20.4
Amine and Thiazole	0.4
Anti Rusting Agent	2
Cold Cleaners with Solvents	77
Copper Salt and Aliphatic Amine	2
Dimethacrylate Ester	7
Hydrocarbon / Monoterpene Blend	138
Methylene Chloride	73
Methylene diphenyl Diisocyanate Prepolymer	2
	i

Grand Total (A+b+C)	148250
Sub total	12000
Cleaner	10750
Solvent Based Polymer	650
Water and Silica Based Coating	1
Surfactants and Conditioners	268
Solder Flux	8
Poly Urethene	0.2

#### 2.5 PROCESS DESCRIPTION:

# 1. Frekote (perchloro silane)

# **Process description:-**

- I. <u>Isopar E Preparation (Moisture free)</u>
- a. Add the Isopar E from 200 lits drum to tank through AODD pump.
- b. Start the agitator to get the uniform mixture.
- c. Removal of moisture from Isopar E by self-circulation through pump with molecular sieves (Moisture absorbent media)
- d. Carry out all activity in presence of nitrogen blanketing.
- e. Give sample for moisture check, If it is within specification then proceed for next step as per Batch card. If not then continue the above step.
- f. Entire process is under nitrogen blanketing and ambient temperature

# II. SFR preparation

- a. Take the moisture free Isopar E from tank by pump
- b. Add the rest RM and start the agitator.
- c. Do the stirring as per batch card and give sample to quality parameter checking.
- d. Once quality parameters are within specification then transfer the required quantity for further process as per batch card.
- e. Entire process is under nitrogen blanketing and ambient temperature

# III. <u>B4B preparation</u>

- a. ISOPAR E (Moisture free ISOPAR E from Tank by pumping to reactor) Pumping
- b. MMA charging into reactor with nitrogen pressure through cylinder
- c. MTS charging into reactor with nitrogen pressure through cylinder
- d. Mixing and cooling with (Chilled water)
- e. Temperature must be maintained below 45 Deg C as the reaction is exothermic.
- f. Entire process is under nitrogen blanketing
- g. After completion of batch, filter the reaction mass and separate the Mother liquor and solids

- h. Collect the mother liquor (B4B) in tank and remove the solids from filter and give sample to QC for parameter check.
- i. Once quality parameters are within specification then transfer the required quantity for further process as per batch card

# IV. Preparation of 55 NC

- a. Receive SFR form tank
- b. Receive Isopar E (moisture free) from tank
- c. Receive B4B (mother Liquor) from tank
- d. Quantity of all RMs as per batch size which has been mentioned in batch card.
- e. Start the mixing with nitrogen blanketing.
- f. Provide the sample to check the quality parameter.
- g. Once quality parameters are within specification then transfer the required quantity for further process as per batch card.
- h. Entire process is under nitrogen blanketing and ambient temperature

# V. Preparation of D55 NC

- a. Receive the 55 NC as RM form earlier stage.
- b. Receive the Isopar E (Moisture free) from tank
- c. Start the mixing with nitrogen blanketing
- d. Provide the sample to check the quality parameter.
- e. Once quality parameters are within specification then down fill the product through online filtration system in required pack size followed by packaging activity with nitrogen blanketing.
- f. Entire process is under nitrogen blanketing and ambient temperature

#### **CHEMICAL REACTIONS**

[ CH3SiCl3 + 6 CH3NH2 ---> CH3Si (NH2)3 + 3 NH4+Cl-]

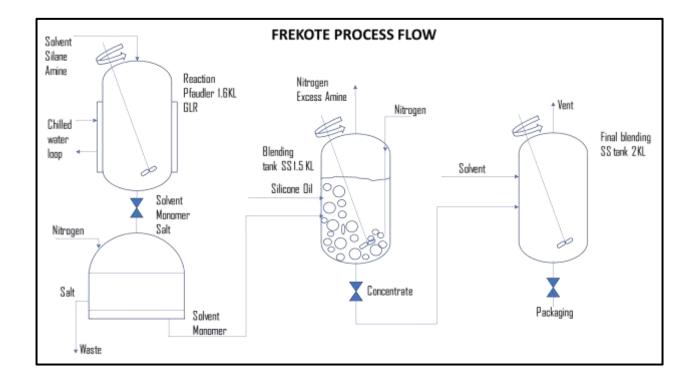
Methyl Tri Mono Methyl Amino Amino

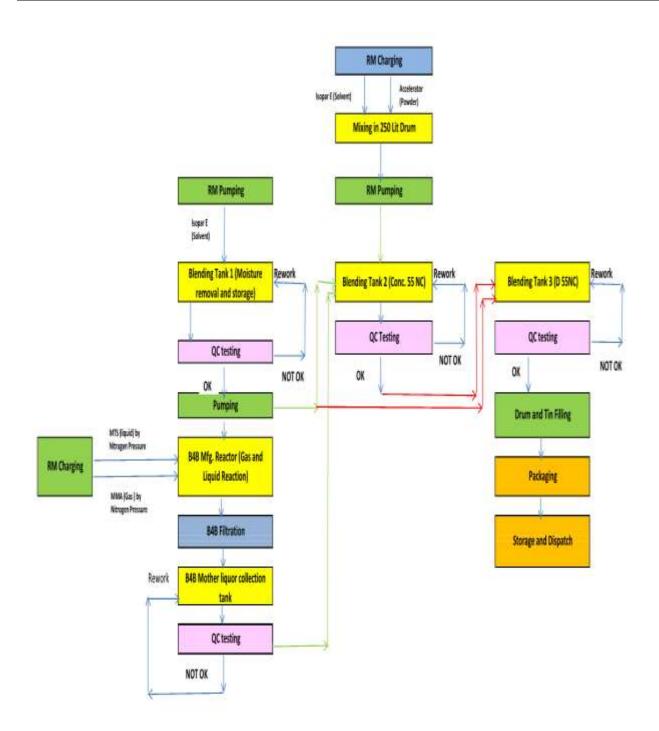
Chloro Silane Amine Silane Chloride Salt

Reaction is exothermic in Nature.

For complete conversion of one mole of Methyl Trichloro Silane to Amino Silane, six moles of Mono Methyl Amine are required.

### **PROCESS FLOW DIAGRAM**





# Reaction:-

Sr	Raw Materials per tonne of product		Quantity (Kg)	Yield
1	Solvent - Isopar E		830.1	
2	Methyl Trichlorosilane		71.7	
3	Methyl Amine		98.2	
	ТО	ΓAL	1000	Approx. 850

# **Blending for Concentrate:-**

Sr	Raw Materials per tonne of product		Quantity (Kg)	Yield
1	Solvent - Isopar E		415	
2	Amino silane (B4B-1.5)		485	
3	PDMS,OH Terminated		100	
ТОТА		TAL	1000	100%

# **Blending for Final Product:-**

Sr	Raw Materials per tonne of product		Quantity (Kg)	Yield
1	Solvent - Isopar E		688	
2	Methyl Trichlorosilane		312	
	1	TOTAL	1000	100%

# **Material Balance**

OU	ITPL	JT iı	n To	onn	е																	
						٧	Vate	er				En	Air niss		F	łaz	ardo	us w	vaste			
							βι	,		wasr						oce /as			cove			
S r. N o.	Product	By-Product	Waste water actual	organic	inorganic	Reaction water	Water loss during Drying	In product/In waste	Total	Xecycle / reuse of waste /	To ETP	Gases	Solvent loss	Total	Residue	Spent Carbon	Total	For reuse	sold to authorized party	Total	Non- Hazar dous wast e	Gran d Tota I
1	850	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0	150	0	0	0	0	1000

# 2. Water base adhesives & Emulsion polymer

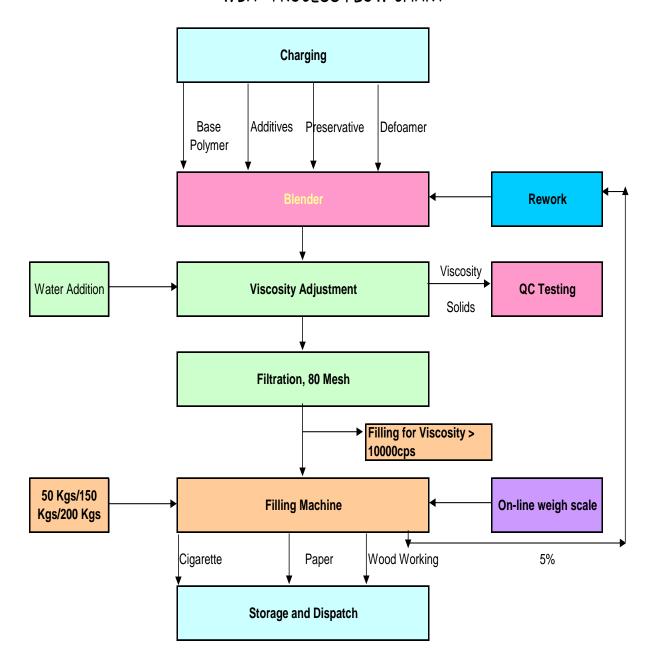
#### **Process Description:-**

- i) Pre-batched liquid RM as per process batch card from Drum, buckets, charging in vessel through charging nozzle
- ii) Pre-batched solid powder as per process batch card from Bags charging in vessel through charging nozzle
- iii) RM charging/addition sequence to be follow as per batch card
- iv) Mixing starts and keeping the RPM as per product requirement.
- v) Process parameter to be maintained as per batch card by utilities
- vi) Check the in process QC parameter, if this is within specification then follow the next step as per batch card, If parameter is out of specification then do adjustment as per SOP i.e HPCN guidelines.
- vii) Do the mixing with specified RPM and give sample to check quality parameters
- viii) Once Quality parameter are within specification then discharge the batch by gravity or discharge press with online filtration system.
- ix) Temperature should Maintain as per mention in batch card for each product (Min 45 Deg C to Max 90 Deg C) else out of specs product will produce.
- x) Once manufacturing process completes and quality has given go ahead after final testing then down fill the material in required pack size by online or filling machines followed by packaging.
- xi) FG and SFG storage condition are free from impurity at room temperature.

#### **CHEMICAL REACTIONS:-**

# **PROCESS FLOW DIAGRAM:-**

# WBA - PROCESS FLOW CHART



# **Material Balance:-**

Sr	Raw Materials per tonne of product	Assay/purity	Quantity (Kg)	yield
1	Vinyl Acetate Monomer		490	98%
2	Poly Vinyl Alcohol		40	
3	Initiater		2	
4	Water		458	
5	Additive		10	
TOTAL			1000	

OL	JTPU <sup>.</sup>	T ir	ı To	nne	9																	
							Wa	ter				En	Air niss n			Haz	ardo	us v	vaste			
		(					б			/ 0	Б					roce Vast			over			
S r. N o	Product (kg)	By-Product (kg)	Waste water actual	organic	inorganic	Reaction water	Water loss during Drying	in product/in waste material/filter cake etc	Total	Recycle / reuse of waste		(kg)	Solvent loss (kg)	Total (kg)	Residue (kg)	Spent Carbon	Total (kg)	For reuse (kg)	sold to authorized party	Total	Non- Hazar dous waste (kg)	Gra nd Tot al
1	980	0	0	0	0	0	0	0	0	0	00	0	0	0	20	0	20	0	0	0	00	100 0

# 2.6 Raw material required along with estimated quantity, likely source, marketing area of final Product/s, mode of transport of raw material and finished product

#### **Raw Materials:**

The detailed raw material list for proposed products as per selected capacity is detailed below for all reactants, solvents and support chemicals.

Source for Raw Material Procurement:

Raw Materials are easily available in the local market or some of the materials are imported.

**Mode of Transport of Raw Materials:** Raw Material and finished goods will be transported through Trucks/ Tankers/by road.

**Storage at the site:** Raw Materials will be stored in warehouse at the project site. Location of storage yard is demarcated in Layout Plan.

**Table 2-2: Details of Raw material Quantity** 

Sr. No.	Chemicals/Items	Status, Solid, liquid, gas	locati on	Storage capacity/ Tanks/ Vessel/ Bags (MT)	No. of Tanks/ Vessel/ Bags	Max quantity of storage at any point of time in MT	No. of Days of storage	Consump tion/MT in Annum	Source of supply	Mean s of Trans port
1	Methylhexahydrophthalic anhydride	Liquid	Ware house	0.0250	96	2.3910	30	29.0909	Imported	Sea, Road
2	Toughened epoxy resin with acrylic rubber particles	Liquid	Ware house	0.0250	23	0.5831	30	7.0942	Imported	Sea, Road
3	Copolymer with acidic groups	Liquid	Ware house	0.0250	2	0.0445	30	0.5411	Imported	Sea, Road
	Glycidyloxypropyltrimethoxysilane *3-	Liquid	Ware house	0.0250	4	0.1112	30	1.3527	Imported	Sea, Road
5	Ethylhexyl acrylate, ethyl acrylate copolymer	Liquid	Ware house	0.0250	2	0.0593	30	0.7214	Imported	Sea, Road
- h	Epxid resin based on Bisphenol A and imidazole dervatives	Liquid	Ware house	0.0250	36	0.8944	30	10.8817	Imported	Sea, Road
7	Epoxidharz	Liquid	Ware house	0.0250	16	0.4003	30	4.8697	Imported	Sea, Road
8	Bisphenol-F, epichlorohydrin epoxy resin	Liquid	Ware house	0.0250	370	9.2454	30	112.4853	Imported	Sea, Road
9	Isophthalic acid dihydrazide	Crystal	Ware house	0.0250	1	0.0250	30	0.1804	Imported	Sea, Road
10	Fumed silica	Powder	Ware house	0.0250	44	1.1113	30	13.5212	Imported	Sea, Road
11	Hydroxycyclohexyl phenyl ketone	Liquid	Ware house	0.0200	8	0.1554	30	1.8902	Imported	Sea, Road
	Dimethoxy-2-phenylacetophenone *2,2- Benzil dimethyl ketal	Powder	Ware house	0.0200	28	0.5584	30	6.7936	Imported	Sea, Road
13	Dimethylacrylamide *N,N-	Liquid	Ware house	0.1900	1	0.2594	30	3.1563	Imported	Sea, Road

14	Methoxyphenol *4- HQMME Hydroquinone monomethyl ether	Solid	Ware house	0.0003	22	0.0056	30	0.0676	Imported	Sea, Road
15	Isobornyl acrylate	Liquid	Ware house	0.0250	96	2.4114	30	29.3386	Imported	Sea, Road
16	Hydrophobic, amorphous, fumed silica	Powder	Ware house	0.0100	135	1.3545	30	16.4800	Imported	Sea, Road
17	N,N-Dimethylacrylamide	Liquid	Ware house	0.0250	67	1.6718	30	20.3406	Imported	Sea, Road
18	Acrylic acid isobornyl ester	Liquid	Ware house	0.1800	3	0.5151	30	6.2675	Imported	Sea, Road
19	1,6-Hexamethylene diisocyanate based polyisocyanate	Liquid	Ware house	0.0250	136	3.4110	30	41.5001	Imported	Sea, Road
20	Pigment Blue 15:3	Liquid	Ware house	0.0250	1	0.0250	30	0.0200	Imported	Sea, Road
21	Methacrylic acid, isobornyl ester IBOMA	Liquid	Ware house	0.1800	0	0.0395	30	0.4810	Imported	Sea, Road
22	Thiodiphenylamine	Pellets	Ware house	0.0250	1	0.0250	30	0.0225	Imported	Sea, Road
23	Tosyl isocyanateToluenesulfonyl isocyanate *4-	Liquid	Ware house	0.0250	3	0.0670	30	0.8157	Imported	Sea, Road
24	Treated, fumed silica	Solid	Ware house	0.0050	26308	131.5405	30	1600.409 2	Imported	Sea, Road
25	[3-(2,3epoxypropoxy)propyl]trimet hoxysilane	Liquid	Ware house	0.0250	328	8.2073	30	99.8557	Imported	Sea, Road
26	Phenyltrimethoxysilane	Liquid	Ware house	0.0250	1	0.0250	30	0.2255	Imported	Sea, Road
27	Hydroxy-2-methylpropiophenone *2-	Liquid	Ware house	0.0250	3	0.0681	30	0.8288	Imported	Sea, Road
28	Trimethylbenzoyl diphenyl phosphine oxide *2,4,6-	Powder	Ware house	0.0250	6	0.1395	30	1.6974	Imported	Sea, Road
29	Epoxy resin based on Bisphenol-A and epichlorohydrin	Liquid	Ware house	0.0250	2977	74.4338	30	905.6114	Imported	Sea, Road
30	Epoxy acrylate, based on Bisphenol A	Liquid	Ware house	0.0250	2	0.0395	30	0.4810	Imported	Sea, Road

31	Bisphenol A-epichlorohydrin copolymer	Liquid	Ware house	0.0250	2	0.0494	30	0.6012	Imported	Sea, Road
32	Bisphenoyl A- Epichlorohydrin Polymer	Liquid	Ware house	0.0250	1	0.0250	30	0.0601	Imported	Sea, Road
33	Imidazole derivatives, Bisphenol A/F resins	Pasty	Ware house	0.0250	6	0.1482	30	1.8036	Imported	Sea, Road
34	Tricyclodecane dimethanol diacrylate	Liquid	Ware house	0.0250	1	0.0250	30	0.1202	Imported	Sea, Road
35	Methacrylic acid glycidyl ester	Liquid	Ware house	0.0250	2	0.0395	30	0.4810	Imported	Sea, Road
36	Butylperoxi-2-ethylhexanoate *tert-	Liquid	Ware house	0.0250	1	0.0250	30	0.0361	Imported	Sea, Road
37	Bis(3,4- epoxycyclohexyl)methyl)adipate	Liquid	Ware house	0.0250	3	0.0741	30	0.9018	Imported	Sea, Road
38	lycidoxypropyl)trimethoxysilane *3(-	Liquid	Ware house	0.0250	1	0.0250	30	0.0361	Imported	Sea, Road
39	Aliphatic polyester urethane acrylate	Liquid	Ware house	0.0250	26	0.6600	30	8.0303	Imported	Sea, Road
40	Polypropylene glycol, epichlorohydrin copolymer	Liquid	Ware house	0.0250	18	0.4565	30	5.5542	Imported	Sea, Road
41	Epoxy resin	Liquid	Ware house	0.0250	66	1.6603	30	20.2009	Imported	Sea, Road
42	Ethylhexyl glycidyl ether *2-	Liquid	Ware house	0.0250	6	0.1559	30	1.8965	Imported	Sea, Road
43	Thermoplastic Polyurethane Resins	Liquid	Ware house	0.0250	1	0.0250	30	0.1355	Imported	Sea, Road
44	Allylphenol, formaldehyde novolac resin	Liquid	Ware house	0.0250	8	0.2003	30	2.4376	Imported	Sea, Road
45	2,2'- [methylenebis(phenyleneoxymethy lene)]bisoxirane	Liquid	Ware house	0.0250	1	0.0250	30	0.0812	Imported	Sea, Road
46	Hydroxyethane-1,1-diphosphonic acid *1- OR Etidronic acid	Liquid	Ware house	0.0650	1	0.0650	15	0.0460	Local	Road
47	1,2-propylene glycol	Liquid	Ware	0.2150	1	0.2150	15	0.2198	Local	Road

			house							
48	Dihydroxyethane *1,2-Ethanediol *1,2-	Liquid	Ware house	0.0250	3	0.0728	15	1.7717	Local	Road
49	Methacrylic acid lauryl ester	Liquid	Ware house	0.1850	2	0.4492	30	5.4653	Imported	Sea, Road
50	Methacrylic acid 2-hydroxypropyl ester	Liquid	Ware house	0.2000	31	6.1286	30	74.5651	Imported	Sea, Road
51	Dihydroxybenzene *1,4-	Powder	Ware house	0.0005	7	0.0036	15	0.0885	Local	Road
52	Soft water	Liquid	Ware house	0.0350	18	0.6180	15	15.0388	Local	Road
53	Oxo alcohol C13, ethoxylated (12 EO) OR Isotridecanol ethoxylated (12 EO)	Liquid	Ware house	0.0500	2	0.0801	15	1.9481	Local	Road
54	Polyethylene Glycol	Liquid	Ware house	0.2041	108	22.1442	30	269.4210	Imported	Sea, Road
55	Methyl methacrylate	Solid	Ware house	0.0250	74	1.8607	30	22.6385	Imported	Sea, Road
56	Ethyl acrylate, methacrylic acid copolymer	Liquid	Ware house	0.2350	0	0.0873	15	2.1237	Local	Road
57	Bisphenol-A ethoxylated dimethacrylate (2 EO)	Liquid	Ware house	0.2000	4	0.8718	30	10.6072	Imported	Sea, Road
58	LOCTITE DRI DYE RED HO20KG	Liquid	Ware house	0.0204	953	19.4591	30	236.7520	Imported	Sea, Road
59	Quartz	Powder	Ware house	0.0227	282	6.3948	30	77.8035	Imported	Sea, Road
60	N-Butylferrocene	Liquid	Ware house	0.0050	1	0.0050	30	0.0079	Imported	Sea, Road
61	Ammonium benzoate	Powder	Ware house	0.0050	1	0.0054	15	0.1307	Local	Road
62	Secondary ammonium phosphate	Powder	Ware house	0.0005	4	0.0020	15	0.0106	Local	Road
63	Sodium hydroxide	Powder	Ware house	0.0050	31554	157.7698	15	3839.064 0	Local	Road

64	Cumene hydroperoxide	Liquid	Ware house	0.2000	3	0.5637	15	13.7163	Local	Road
1 5	Hydrophilic, amorphous, fumed silica	Powder	Ware house	0.0100	27	0.2652	15	6.4530	Local	Road
66	Hydroxypropoxy)phenyl]propane fumaric acid polymer *2,2-Bis[4-(2-Bisphenol A bis(2-hydroxypropyl) ether fumaric acid polymer	Powder	Ware house	0.1200	18	2.1805	30	26.5290	Imported	Sea, Road
h h /	Ethylenediaminetetraacetic acid tetrasodium salt	Powder	Ware house	0.0250	13	0.3340	15	8.1265	Local	Road
68	1,4-Naphthoquinone	Powder	Ware house	0.0005	27	0.0133	30	0.1622	Imported	Sea, Road
69	Maleic Acid	Powder	Ware house	0.0025	19	0.0473	15	1.1519	Local	Road
///	Acetic acid-2-phenylhydrazide Acetylphenylhydrazine *.beta	Powder	Ware house	0.0250	5	0.1299	15	3.1610	Local	Road
71	Tetraethylen eglycol di(2- ethylhexanoate)	Liquid	Ware house	0.1900	7	1.3190	15	32.0947	Local	Road
72	Polyvinyl acetate	Powder	Ware house	0.0250	38	0.9416	15	22.9115	Local	Road
73	THIXATROLÒ ST	Powder	Ware house	0.0250	3	0.0673	15	1.6378	Local	Road
74	Polyethylene	Powder	Ware house	0.0227	64	1.4421	30	17.5459	Imported	Sea, Road
75	Poly(tetrafluoroethylene)	Powder	Ware house	0.0400	12	0.4668	15	11.3584	Local	Road
76	Decyl alcohol	Liquid	Ware house	0.1700	2	0.3242	15	7.8891	Local	Road
	Pigmented melamine, sulfonamide, formaldehyde copolymer	Powder	Ware house	0.0250	1	0.0250	15	0.4701	Local	Road
/×	Hexamethyldisilazane, silica reaction product	Powder	Ware house	0.0050	5	0.0262	30	0.3184	Imported	Sea, Road
79	Propenoic acid *2-	Liquid	Ware	0.2000	3	0.5929	15	14.4266	Local	Road

			house							
80	Benzisothiazoline-3-one 1,1- dioxide *1,2- Benzoyl sulfimide *o-	Powder	Ware house	0.0500	6	0.3113	15	7.5757	Local	Road
81	Dibutyltin dilaurate	Liquid	Ware house	0.0200	1	0.0250	15	0.0348	Local	Road
82	Solvent Red 24	Powder	Ware house	0.0050	1	0.0050	15	0.0026	Local	Road
83	Solvent Blue 36	Powder	Ware house	0.0050	143	0.7151	15	17.4016	Local	Road
84	Propoxylated trimethylolpropane	Liquid	Ware house	0.2041	7	1.5093	30	18.3632	Imported	Sea, Road
85	Toluene diisocyanate *2,4(2,6)- TDI	Liquid	Ware house	0.2500	1	0.2550	15	6.2043	Local	Road
ı xn	Polyvinyl butyral, polyvinyl alcohol, polyvinyl acetate terpolymer	Powder	Ware house	0.0658	1	0.0934	30	1.1358	Imported	Sea, Road
87	Polyurethane	Liquid	Ware house	0.2100	238	49.8947	15	1214.105 4	Local	Road
88	Pylaklor acid blue S 423	Liquid	Ware house	0.0050	1	0.0050	15	0.0012	Local	Road
89	Tetramethyl-5-decyne-4,7-diol *2,4,7,9-, ethoxylated (3.5 EO)	Liquid	Ware house	0.2000	0	0.0725	30	0.8824	Imported	Sea, Road
90	Byk 028	Powder	Ware house	0.0250	1	0.0335	15	0.8155	Local	Road
91	5-Chloro-2-methyl-4-isothiazoline- 3-on and 2-methyl-4-isothiazoline- 3-on (mixture in a ratio of 3:1)	Semi- Pasty	Ware house	0.2100	1	0.2293	30	2.7901	Imported	Sea, Road
92	Synthetic polyamide wax	Powder	Ware house	0.0100	2	0.0200	30	0.1930	Imported	Sea, Road
93	Titanium dioxide in unsaturated polyester	Liquid	Ware house	0.0250	1	0.0250	30	0.1690	Imported	Sea, Road
1 44	Cyanuric acid triallyl ester Triallyl cyanaurate	Liquid	Ware house	0.2000	0	0.0632	15	1.5370	Local	Road
	Ditrimethylolpropane tetraacrylate	Liquid	Ware	0.2000	0	0.0789	30	0.9604	Imported	Sea,

			house							Road
	Cyclohexene, 1-methyl-4-(1- methylethenyl)-, (r)	Liquid	Ware house	0.0180	1	0.0180	15	0.2784	Local	Road
97	N,N-Diethyl-p-toluidine	Liquid	Ware house	0.0173	5	0.0895	30	1.0886	Imported	Sea, Road
98	N,N-Dimethyl-o-toluidine	Liquid	Ware house	0.0180	1	0.0180	30	0.2307	Imported	Sea, Road
uu	Solvent Green 3 1,4-bis(p- tolylamino)anthraquinone	Powder	Ware house	0.0050	63	0.3127	15	7.6095	Local	Road
100	Solvent Yellow 16	Powder	Ware house	0.0050	1	0.0050	30	0.0104	Imported	Sea, Road
101	Trimethoxysilylpropyl methacrylate	Liquid	Ware house	0.0250	56	1.3930	30	16.9481	Imported	Sea, Road
102	Triethylene glycol dimethacrylate TEDMA	Liquid	Ware house	0.2000	4	0.8773	30	10.6742	Imported	Sea, Road
103	Benzoquinone *para-	Liquid	Ware house	0.0010	1	0.0012	15	0.0300	Local	Road
104	Methacrylic acid, stabilized	Liquid	Ware house	0.2000	0	0.0540	15	1.3129	Local	Road
105	Solvent Yellow 14	Powder	Ware house	0.0100	18	0.1826	30	2.2213	Imported	Sea, Road
106	Hydroxycyclohexyl)propane *2,2- Bis-(4- hydrogenated bisphenol A	Liquid	Ware house	0.0200	2	0.0457	15	1.1125	Local	Road
	Phenoxyethyl acrylate *2- Acrylic acid 2-phenoxyethyl ester	Liquid	Ware house	0.0180	24	0.4263	30	5.1869	Imported	Sea, Road
108	Phenoxyethyl methacrylate *2-	Liquid	Ware house	0.2177	2	0.4263	30	5.1869	Imported	Sea, Road
109	Methacrylated acidic compound	Liquid	Ware house	0.0100	1	0.0100	30	0.0682	Imported	Sea, Road
	Poly(3-methyl-1,5-pentanediol adipate)	Liquid	Ware house	0.2150	1	0.2230	15	5.4272	Local	Road
111	Synthetic organic colorant	Powder	Ware house	0.0250	1	0.0250	30	0.1917	Imported	Sea, Road

112	Bismaleimido)diphenylmethane *4,4'-(N,N'- Diaminodiphenylmethanebismaleim ide *N,N'-4,4'-	Powder	Ware house	0.0250	4	0.0988	30	1.2024	Imported	Sea, Road
113	TMCHMA Trimethylcyclohexyl methacrylate *3,3,5-	Liquid	Ware house	0.1814	1	0.2178	30	2.6505	Imported	Sea, Road
114	sodium nitrite, NaNO2	Powder	Ware house	0.0005	8	0.0042	15	0.1030	Local	Road
115	Chloroallyl)3,5,7-triaza-1- azoniaadamantane chloride *1(3-	Powder	Ware house	0.0454	1	0.0450	15	0.0163	Local	Road
116	Mixture of pigments	Liquid	Ware house	0.0180	2	0.0415	15	1.0092	Local	Road
1 1 1 /	Aqua ammonia Ammonium hydroxide	Liquid	Ware house	0.0048	1	0.0050	15	0.0654	Local	Road
118	Muscovite Mica	Powder	Ware house	0.0227	7	0.1523	30	1.8536	Imported	Sea, Road
119	Titanium dioxide Pigment White 6	Powder	Ware house	0.0500	1	0.0552	15	1.3442	Local	Road
120	Acrylic polymer	Liquid	Ware house	0.2150	513	110.2610	15	2683.016 5	Local	Road
121	Mixture of foam destroying polysiloxanes and hydrophobic solids in polyglycol	Liquid	Ware house	0.0250	1	0.0250	15	0.0206	Local	Road
122	Polystyrene	Solid - Granual s	Ware house	0.0250	1	0.0250	15	0.4514	Local	Road
123	Copolymer dispersion	Liquid	Ware house	0.0050	1	0.0050	15	0.0249	Local	Road
	Peroxybenzoic acid tert-butyl ester Butyl peroxybenzoate *tert-	Liquid	Ware house	0.0250	1	0.0250	15	0.5345	Local	Road
125	PEG 200 Monooleate	Liquid	Ware house	0.0500	7	0.3281	15	7.9844	Local	Road
126	Casein solution, stabilized	Semi- Pasty	Ware house	0.2250	6	1.2951	30	15.7565	Imported	Sea, Road

127	Methyl-2-mercaptobenzimidazole zinc salt *4-(5-)	Liquid	Ware house	0.0200	1	0.0200	15	0.0383	Local	Road
128	Silylmodified silicone dioxide	Powder	Ware house	0.0100	3	0.0267	15	0.6504	Local	Road
	Functional-group-terminated polyacrylate	Liquid	Ware house	0.2000	2	0.4654	30	5.6623	Imported	Sea, Road
130	Poly(ethyl methacrylate)	Powder	Ware house	0.0750	1	0.0750	15	0.2148	Local	Road
131	Coumarone Resin	Solid - Granual s	Ware house	0.0200	2	0.0316	30	0.3842	Imported	Sea, Road
	Dimethacrylate terminated urethane polyester	Pasty	Ware house	0.2000	15	3.0251	30	36.8053	Imported	Sea, Road
133	Diaminoethane *1,2-	Liquid	Ware house	0.0005	32	0.0160	15	0.3900	Local	Road
134	2-PYRIDINECARBOXALDEHYDE	Liquid	Ware house	0.0001	173	0.0086	15	0.2100	Local	Road
135	Polytetramethylene ether glycol Polytetrahydrofuran	Liquid	Ware house	0.2000	0	0.0495	15	1.2044	Local	Road
136	Citric acid	Powder	Ware house	0.0005	71	0.0356	15	0.8663	Local	Road
	Benzisothiazolin-3-one aqueous dispersion *1,2-	Liquid	Ware house	0.0250	1	0.0335	15	0.8155	Local	Road
138	Poly-2-chloro-1,3-butadiene Polychloroprene	Liquid	Ware house	0.2250	0	0.0670	15	1.6310	Local	Road
139	methanol	Liquid	Ware house	0.0200	2	0.0335	15	0.8155	Local	Road
	Biocide based on octyl-4- isothiazolin-3-one *2-	Solid	Ware house	0.0250	1	0.0335	15	0.8155	Local	Road
	Sodium dodecyl sulfate Sodium lauryl sulfate	Liquid	Ware house	0.2040	0	0.0335	15	0.8155	Local	Road
142	2,2'-Methylenebis (4-Methyl-6- tertiarybutyi Phenol)	Liquid	Ware house	0.0200	2	0.0335	15	0.8155	Local	Road
	Zinc Oxide	Liquid	Ware	0.0200	830	16.5943	15	403.7953	Local	Road

			house							
144	Aminoacetic acid Glycocoll	Liquid	Ware house	0.0005	67	0.0335	15	0.8155	Local	Road
145	Petroleum distillates, solvent dewaxed heavy paraffinic	Liquid	Ware house	0.0160	2	0.0335	15	0.8155	Local	Road
146	Acrylic copolymer	Liquid	Ware house	0.2040	18	3.5981	15	87.5540	Local	Road
147	Benzoate esters	Liquid	Ware house	0.2250	0	0.0335	15	0.8155	Local	Road
148	Polymerdispersion (Chloropren)	Liquid	Ware house	0.2250	0	0.0335	15	0.8155	Local	Road
149	Benzoyl peroxide microcapsules	Liquid	Ware house	0.0680	8	0.5661	30	6.8879	Imported	Sea, Road
150	MASK AMANDE	Liquid	Ware house	0.0250	1	0.0250	30	0.0011	Imported	Sea, Road
151	Dimethyl-p-toluidine *N,N- Trimethylaniline *N,N,4-	Liquid	Ware house	0.0005	15	0.0076	15	0.1847	Local	Road
152	Octyl alcohol Octanol *n-	Liquid	Ware house	0.0100	1	0.0116	15	0.2827	Local	Road
153	Fluorophlogopite	Powder	Ware house	0.0250	2	0.0493	30	0.5999	Imported	Sea, Road
154	Octylphenol ethoxylated	Liquid	Ware house	0.0250	1	0.0250	15	0.0792	Local	Road
155	Dimethylethyl)cyclohexyl methacrylate *4-(1,1- Butylcyclohexyl methacrylate *4- tert-	Liquid	Ware house	0.1700	1	0.1528	30	1.8587	Imported	Sea, Road
156	Butylene glycol dimethacrylate *1,3-	Liquid	Ware house	0.1800	1	0.1800	15	0.5437	Local	Road
157	Phenylenedimaleimide *N,N'-1,3- Dimaleimidobenzene *1,3-	Powder	Ware house	0.0250	2	0.0419	15	1.0192	Local	Road
158	LOCTITE RIGID RESIN OC DR55GA	Liquid	Ware house	0.1700	1	0.1314	30	1.5981	Imported	Sea, Road
159	Hydroxyethylethylenediaminetriace	Liquid	Ware	0.2700	1	0.2700	15	0.1800	Local	Road

	tic acid trisodium salt		house							
160	Benzyl methacrylate Methacrylic acid benzyl ester	Liquid	Ware house	0.1800	1	0.1800	15	0.1429	Local	Road
161	Blend of bimetallic stabilized precursor and methacrylic acid in propylene glycol	Liquid	Ware house	0.0227	1	0.0227	15	0.0317	Local	Road
162	Methacryloyloxyethyl) phosphate *bis-	Liquid	Ware house	0.0200	1	0.0200	30	0.0175	Imported	Sea, Road
163	Pigment mixture	Powder	Ware house	0.0250	1	0.0250	30	0.0196	Imported	Sea, Road
164	Epoxy resin based on Bisphenol A diglycidylether polymer	Semi- Pasty	Ware house	0.2400	0	0.1037	15	2.5230	Local	Road
165	Methacrylic acid tetrahydrofurfuryl ester	Liquid	Ware house	0.2000	1	0.1207	15	2.9358	Local	Road
166	Ethylhexyl methacrylate *2- Methacrylic acid 2-ethylhexyl ester EHMA	Liquid	Ware house	0.0250	1	0.0250	15	0.4307	Local	Road
	chlorosulfonated polyethylene	Liquid	Ware house	0.0250	3	0.0738	15	1.7958	Local	Road
168	Styrene, 2-ethylhexyl acrylate copolymer	Liquid	Ware house	0.0250	4	0.0986	15	2.3986	Local	Road
169	Carboxyethyl acrylate *.beta	Liquid	Ware house	0.2080	1	0.2080	30	0.0318	Imported	Sea, Road
170	3-phenoxy-2-hydroxypropyl methacrylate	Liquid	Ware house	0.0200	1	0.0200	15	0.1434	Local	Road
171	Menthane hydroperoxide *p-	Liquid	Ware house	0.0250	1	0.0250	30	0.0504	Imported	Sea, Road
172	Ethyl Cyanoacrylate	Liquid	Ware house	0.2000	50	9.9002	30	120.4522	Imported	Sea, Road
173	Pentafluorobenzonitrile	Liquid	Ware house	0.0500	13	0.6431	30	7.8240	Imported	Sea, Road
174	Tetrahydrophthalic anhydride *3,4,5,6-	Powder	Ware house	0.0200	97	1.9315	30	23.5000	Imported	Sea, Road
175	Reactive surfactant	Liquid	Ware	0.0030	1888	5.6636	30	68.9070	Imported	Sea,

			house							Road
176	Triacetine Glyceryl triacetate	Liquid	Ware house	0.2318	2	0.4482	15	10.9060	Local	Road
177	Dibenzo-1,4,7,10,13,16- hexaoxacyclooctadecane *2,3,11,12-	Powder	Ware house	0.0100	1	0.0100	30	0.1667	Imported	Sea, Road
178	Isobenzofurandione *1,3-	Powder	Ware house	0.0005	14	0.0068	15	0.1649	Local	Road
179	Carbon Black	Solid - Rubber		0.2000	28	5.5075	30	67.0084	Imported	Sea, Road
180	Solvent Violet 3	Powder	Ware house	0.0000	53425	1.3356	15	32.5000	Local	Road
181	hydroxypropane-1-sulfonic acid *3-	Solid	Ware house	0.0003	11836	2.9589	30	36.0000	Imported	Sea, Road
182	Ethyl 2-Cyanoacrylate	Liquid	Ware house	0.2000	338	67.5077	30	821.3441	Imported	Sea, Road
183	Polyamide resin	Liquid	Ware house	0.1900	206	39.2201	15	954.3562	Local	Road
184	2-Piperazin-1-ylethlamine	Liquid	Ware house	0.2000	4	0.7997	15	19.4584	Local	Road
185	Bis(2,3-epoxypropyl) cyclohexane- 1,2-dicarboxylate 100%	Liquid	Ware house	0.2200	36	7.9963	15	194.5758	Local	Road
186	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane 100%	Pasty	Ware house	0.2200	45	9.9953	15	243.2198	Local	Road
187	résine époxydique, DGEBA.	Liquid	Ware house	0.2000	14	2.7674	15	67.3404	Local	Road
188	Diethylenetriamine Phenol, 4,4'- (1-methylethylidene)bis-	Liquid	Ware house	0.2000	1	0.1764	15	4.2933	Local	Road
189	1- Methoxy -2 -Prpanol acetate	Liquid	Ware house	0.0250	1	0.0250	15	0.0200	Local	Road
190	Calcium Carbonate	Powder	Ware house	0.0227	10679	242.4238	15	5898.979 5	Local	Road
191	1,3-Isobenzofurandione	Powder	Ware	0.0680	11	0.7473	15	18.1833	Local	Road

			house							
192	Pigment White 6 Titanium dioxide	Powder	Ware house	0.0250	5	0.1161	15	2.8246	Local	Road
193	Trimethylol propane triglycidyl ether polymer	Liquid	Ware house	0.2000	2	0.3628	15	8.8279	Local	Road
	Mercaptan terminated polymer	Liquid	Ware house	0.2270	2	0.5214	15	12.6871	Local	Road
195	Tris(dimethylaminomethyl)phenol *2,4,6-	Liquid	Ware house	0.2000	0	0.0438	15	1.0657	Local	Road
	Magnetic ferrosilicon Alloy of iron, silicon, titanium, aluminum	Powder	Ware house	0.2500	1	0.2500	30	0.0950	Imported	Sea, Road
197	Alumina Ceramic	Solid - Granual s	Ware house	0.0227	1	0.0337	30	0.1901	Imported	Sea, Road
198	Aluminum oxide Alumina	Solid - Granual s	Ware house	0.0227	44	0.9999	30	12.1651	Imported	Sea, Road
1 99	Potassium silicate 40% solution in Water	Powder	Ware house	0.0500	2	0.1053	15	2.5628	Local	Road
200	Colloidal silica	Powder	Ware house	0.2800	1	0.2830	15	6.8870	Local	Road
201	Magnesium Oxide	Powder	Ware house	0.0005	439	0.2196	15	5.3431	Local	Road
202	Dimethyldicocoammonium chloride	Liquid	Ware house	0.2000	1	0.2000	15	0.0473	Local	Road
203	Synthetic, amorphous silica	Powder	Ware house	0.0250	1	0.0250	15	0.3152	Local	Road
204	Pigment Red 48:2	Powder	Ware house	0.0200	703	14.0568	15	342.0492	Local	Road
205	Phthalocyanine	Powder	Ware house	0.0005	10	1.5759	15	38.3481	Local	Road
206	Triethylentetramine	Liquid	Ware house	0.2000	18	3.5640	15	86.7246	Local	Road
207	Phosphorous acid triphenyl ester	Liquid	Ware	0.1930	0	0.0473	15	1.1504	Local	Road

	Triphenyl Phosphite		house							
	Diazabicyclo[5.4.0]undec-7-ene *1,8-	Powder	Ware house	0.0450	4	0.2015	15	4.9020	Local	Road
	Propenenitrile 1,3-butadiene polymer, 3-carboxy-1-cyano-1-methylpropyl terminated *2-	Pasty	Ware house	0.1810	1	0.1118	15	2.7217	Local	Road
210	Limestone	Powder	Ware house	0.0500	17	0.8505	15	20.6950	Local	Road
211	Hydrogenated castor oil	Powder	Ware house	0.0150	1	0.0150	15	0.5075	Local	Road
212	modified aliphatic amines	Liquid	Ware house	0.0180	7	0.1297	15	3.1572	Local	Road
213	m-Phenylenebis(Methylamine)	Liquid	Ware house	0.2040	4	0.7941	15	19.3222	Local	Road
214	Siloxanes and Silicones di-Me, 3- hydroxy propyl group terminated,ethoxylated	Liquid	Ware house	0.0200	1	0.0200	15	0.3336	Local	Road
215	silicone-free defoamer	Liquid	Ware house	0.0200	1	0.0200	15	0.1604	Local	Road
216	Aliphatic Amine	Liquid	Ware house	0.1950	2	0.3461	15	8.4213	Local	Road
217	Silicon carbide	Powder	Ware house	0.0250	14	0.3577	15	8.7034	Local	Road
218	Silicone silica compound	Liquid	Ware house	0.0160	1	0.0160	15	0.1156	Local	Road
, , i u	Polydimethylsiloxane, hydroxy terminated	Powder	Ware house	0.0227	1707	38.7521	15	942.9688	Local	Road
1 //11	Neodecanoic acid 2,3-epoxypropyl ester	Liquid	Ware house	0.2000	1	0.2752	15	6.6965	Local	Road
221	C36 fatty acid dimer, tall oil fatty acid, triethylenetetramine polyamide	Liquid	Ware house	0.1900	1	0.1350	30	1.6429	Imported	Sea, Road
1 1 1 1	Aminoethyl)-3- aminopropyltrimethoxysilane *N-	Liquid	Ware house	0.0200	1	0.0200	15	0.0173	Local	Road

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223	sononylphenol *4-	Liquid	Ware house	0.2200	1	0.2200	15	0.4208	Local	Road
224	Amidoamine	Liquid	Ware house	0.0001	1	0.0283	15	0.6880	Local	Road
225	Cellulose Fiber	Solid - Pulpy	Ware house	0.0182	1	0.0190	15	0.2599	Local	Road
226	Poly(paraphenylene- terephthalamide)	Solid - Pulpy	Ware house	0.0150	1	0.0150	15	0.1045	Local	Road
227	Neopentyl glycol diglycidyl ether	Liquid	Ware house	0.2160	117	25.2801	15	615.1487	Local	Road
228	Ethyl-4-methylimidazole *2-	Liquid	Ware house	0.0180	5	0.0855	30	1.0408	Imported	Sea, Road
229	Organo-modified hectorite	Powder	Ware house	0.0250	1	0.0250	15	0.5536	Local	Road
230	Activated, colloidal calcium carbonate	Powder	Ware house	0.0250	8	0.2100	15	5.1092	Local	Road
231	Iron aluminum silicate Almandite	Powder	Ware house	0.0227	2	0.0421	15	1.0247	Local	Road
232	Epoxy phenol novolac resin	Liquid	Ware house	0.2250	1	0.2250	15	0.3614	Local	Road
233	Dimethylurea)phenyl]methane *Bis[p-(N,N-	Powder	Ware house	0.0181	2	0.0280	15	0.3915	Local	Road
234	Cycloaliphatic/aliphatic amine	Liquid	Ware house	0.0450	12	0.5391	15	13.1191	Local	Road
235	1-methyl-2-pyrrolidone	Liquid	Ware house	0.0250	1	0.0355	15	0.8650	Local	Road
236	Em Flor 32 CP Colorant Beige Accent	Powder	Ware house	0.0050	1	0.0050	30	0.2577	Imported	Sea, Road
237	Aluminum coated with stearic acid	Powder	Ware house	0.0227	1	0.0220	15	0.0174	Local	Road
238	Annealed Iron Powder FG 3	Powder	Ware house	0.0227	8	0.1887	30	2.2963	Imported	Sea, Road
239	ATA 101 AL Conventional Powder	Liquid	Ware	0.0227	2	0.0417	15	1.0150	Local	Road

			house							
	Ethylene glycol monobutyl ether Butoxyethanol *2- Butyl glycol	Liquid	Ware house	0.1850	1	0.1850	15	0.2520	Local	Road
241	Methylenebis[N,Nbis(2,3- epoxypropyl)aniline] *4,4'- Tetraglycidylbis(p- aminophenyl)methane *N,N,N',N'-	Liquid	Ware house	0.0500	2	0.1213	15	2.9525	Local	Road
1 /4/	Cycloaliphatic and aromatic epoxy curing agent	Liquid	Ware house	0.0001	1	0.0646	15	1.5728	Local	Road
	Iron(3)oxide Pigment Red 101	Powder	nouse	0.0250	2	0.0585	30	0.7119	Imported	Sea, Road
244	Styrene, methyl methacrylate, butadiene copolymer	Powder	Ware house	0.0200	5	0.1050	15	2.5549	Local	Road
245	Cycloaliphatic substituted urea	Powder	Ware house	0.0181	2	0.0350	15	0.8523	Local	Road
246	Oxybis(2,1-ethanediyloxy)]bis-1- propaneamine *3,3'-[ Trioxatridecane-1,13-diamine *4,7,10-	Liquid	Ware house	0.2040	0	0.0703	15	1.7101	Local	Road
247	4-Morpholinecarboxaldehyde	Liquid	Ware house	0.0250	1	0.0250	15	0.1114	Local	Road
248	Butyl acrylate, methacrylic acid, methyl methacrylate copolymer	Liquid	Ware house	0.0200	1	0.0200	30	0.1308	Imported	Sea, Road
249	1,1-Dimethyl-3-(3,4- dichlorophenyl)urea	Powder	Ware house	0.0150	1	0.0150	15	0.0959	Local	Road
250	Dicyandiamide Cyanguanidine *1-	Powder	Ware house	0.0100	1	0.0100	15	0.2049	Local	Road
251	Thiazolyl)benzimidazole *2-(4-	Liquid	Ware house	0.0005	970	0.4852	15	11.8072	Local	Road
252	Modified polydimethylsiloxane	Pasty	Ware house	0.0010	5931	5.9306	15	144.3104	Local	Road
	Triethylenediamine in dipropylene glycol Diazabicyclo[2.2.2]-octane *1,4-	Liquid	Ware house	0.0200	27	0.5400	15	13.1391	Local	Road

1 / 74	Sodium potassium aluminum silicate	Pellets	Ware house	0.0750	37	2.7496	15	66.9075	Local	Road
255	Aluminum hydroxide	Solid	Ware house	1.0000	0	0.4852	15	11.8072	Local	Road
256	Castor oil first special grade	Liquid	Ware house	0.2000	29	5.8875	15	143.2622	Local	Road
257	Diphenylmethane diisocyanate (MDI), polymeric	Liquid	Ware house	0.2500	411	102.7602	15	2500.498 3	Local	Road
/5×	Hydrotreated middle petroleum distillates	Liquid	Ware house	0.0250	1	0.0250	15	0.1578	Local	Road
259	Cycloaliphatic amine	Liquid	Ware house	0.1920	2	0.3027	15	7.3668	Local	Road
260	Poly methylacrylate	Powder	Ware house	0.0250	50	1.2568	15	30.5820	Local	Road
1 /6 1	Methylenebis(4-methyl-6-tert- butylphenol) *2,2'-	Powder	Ware house	0.0005	28	0.0141	15	0.3441	Local	Road
262	Glass fibres	Powder	Ware house	0.0200	2	0.0475	15	1.1565	Local	Road
263	Polyester, high-molecular	Liquid	Ware house	0.0250	1	0.0250	15	0.3608	Local	Road
	Glycerol propylene oxide adduct triamine (81 PO)	Liquid	Ware house	0.2000	1	0.2000	15	0.0300	Local	Road
265	Aminoethylpiperazine *N- Aminoethyl) piperazine *1-(2- AEP	Liquid	Ware house	0.2000	1	0.2000	15	0.2583	Local	Road
266	Aluminum atomized	Powder	Ware house	0.0250	1	0.0281	15	0.6831	Local	Road
/ / n /	Epichlorohydrin, trimethylolpropane copolymer	Liquid	Ware house	0.1800	0	0.0305	30	0.3711	Imported	Sea, Road
268	Zeolite	Pellets	Ware house	0.0250	36	0.8990	30	10.9377	Imported	Sea, Road
269	Polyoxypropylenediamine	Liquid	Ware house	0.2000	7	1.3909	15	33.8458	Local	Road
270	Tinter for Aquamarine Blue	Solid	Ware house	0.0050	108	0.5391	15	13.1191	Local	Road

271	Pigment Orange 34	Powder	Ware house	0.0200	125	2.4918	15	60.6345	Local	Road
272	Reaction mass of bis(2,2,6,6-tetramethyl-1-octyloxypiperidin- 4-yl)-1,10- decanedioate with 1,8-bis[(2,2,6,6-tetramethyl-4-((2,2,6,6-tetramethyl-1-octyloxypiperidin-4-yl)- decan-1,10-dioyl) piperidin-1-yl)oxy]octane	Powder	Ware house	0.0250	1	0.0250	15	0.0407	Local	Road
	Rheological additive Organophilic phyllosilicates	Powder	Ware house	0.0100	3	0.0310	30	0.3771	Imported	Sea, Road
274	Polysulfide, thiol-terminated	Liquid	Ware house	0.2500	0	0.0703	15	1.7108	Local	Road
275	Magnesium silicate Talc	Powder	Ware house	0.0250	4	0.0898	15	2.1844	Local	Road
276	Barium sulfate	Powder	Ware house	0.0250	9	0.2160	15	5.2558	Local	Road
277	Phenol *4,4'-(3H-2,1-benzoxathiol- 3-ylidene)bis[2-bromo-3- methyl-6-(1-methylethyl)-, S,S- dioxide	Powder	Ware house	0.0250	23	0.5715	15	13.9063	Local	Road
278	Cashew nut oil	Liquid	Ware house	0.0200	4	0.0720	15	1.7520	Local	Road
1 //4	Polymer based silicone free defoamer	Liquid	Ware house	0.0250	1	0.0250	15	0.0263	Local	Road
280	Octylene glycol	Liquid	Ware house	0.0200	1	0.0200	15	0.2902	Local	Road
	Caprolactone, trimethylolpropane polymer	Liquid	Ware house	0.0200	1	0.0200	15	0.0542	Local	Road
282	N-Butyl-2-(1-ethylpentyl)-1,3- oxazolidine	Powder	Ware house	0.0250	1	0.0250	15	0.1084	Local	Road
283	Alkylammonium salt	Liquid	Ware house	0.0250	1	0.0250	15	0.0152	Local	Road

284	Polyether polyol	Liquid	Ware house	0.0200	4	0.0766	30	0.9318	Imported	Sea, Road
285	Butanediol diglycidyl ether *1,4-	Liquid	Ware house	0.0250	1	0.0250	15	0.3329	Local	Road
286	Glass Microspheres	Solid	Ware house	0.0250	5	0.1354	30	1.6472	Imported	Sea, Road
287	Alkylated polyamine adduct	Powder	Ware house	0.0250	19	0.4852	15	11.8072	Local	Road
288	Diaminocyclohexylmethane *4,4'-	Semi- Pasty	Ware house	0.0250	1	0.0250	15	0.4982	Local	Road
	Cycloaliphatic polyamine curing agent	Liquid	Ware house	0.2000	2	0.3266	15	7.9464	Local	Road
290	Polypropyleneglycol diglycidyl ether	Liquid	Ware house	0.0200	11	0.2143	15	5.2148	Local	Road
291	Amorphous silica	Solid	Ware house	0.0250	26	0.6557	15	15.9561	Local	Road
1 /4 /	Bisphenol-F type Liquid epoxy resin.	Liquid	Ware house	0.0200	27	0.5391	15	13.1191	Local	Road
	Diamino-6-(2'-methylimidazol-1- yl)ethyl-s-triazine *2,4-	Powder	Ware house	0.0250	19	0.4852	15	11.8072	Local	Road
294	Phenyl-4,5- dihydroxymethylimidazole *2- Bis(hydroxymethyl)-2- phenylimidazole *4,5-	Liquid	Ware house	0.0250	23	0.5715	15	13.9063	Local	Road
295	Epoxy diluent	Solid	Ware house	0.0250	22	0.5391	15	13.1191	Local	Road
296	Bisphenol A diglycidyl ether	Liquid	Ware house	0.0200	24	0.4852	15	11.8072	Local	Road
297	Trihydroxypyrimidine *2,4,6- Malonylurea	Liquid	Ware house	0.0250	44	1.1106	15	27.0254	Local	Road
298	dimethyl esters of adipic, glutaric and succinic acids	Liquid	Ware house	0.2200	2	0.4625	15	11.2544	Local	Road
299	Benzotriazole *1,2,3-	Powder	Ware house	0.0100	1	0.0100	30	0.0082	Imported	Sea, Road

300	Isopropyl Alcohol	Liquid	Ware house	0.1600	2	0.3156	15	7.6796	Local	Road
301	Hexanedioic acid	Powder	Ware house	0.0250	1	0.0250	15	0.0534	Local	Road
302	Butanedioic Acid	Powder	Ware house	0.0025	102	0.2544	15	6.1907	Local	Road
303	Pentanedioic acid	Powder	Ware house	0.0050	1	0.0050	15	0.0534	Local	Road
304	fluoroaliphatic polymeric esters	Liquid	Ware house	0.0030	2	0.0045	15	0.1100	Local	Road
305	Phenylphenol *2-	Powder	Ware house	0.0100	17	0.1748	15	4.2529	Local	Road
306	Dimethylbenzene	solid	Ware house	0.1950	0	0.0550	15	1.3375	Local	Road
307	Diethylene glycol dibutyl ether Dibutyl carbitol Trioxapentadecane *5,8,11-	Liquid	Ware house	0.1800	1	0.1376	15	3.3481	Local	Road
308	Lauryl ether sulfate sodium salt (3 EO)	Liquid	Ware house	0.1800	1	0.1800	15	0.1624	Local	Road
309	Methoxy-2-propanol *1- Propylene glycol monomethyl ether	Liquid	Ware house	0.1900	1	0.2503	15	6.0918	Local	Road
310	Sodium xylenesulfonate	Liquid	Ware house	0.2270	0	0.0868	30	1.0559	Imported	Sea, Road
311	organic surfactants in mineral seal oil	Liquid	Ware house	0.0030	1	0.0030	15	0.0031	Local	Road
312	Dimethyl(coconut oil alkyl)amine oxide *N,N-	Solid	Ware house	0.1900	1	0.1900	30	0.1624	Imported	Sea, Road
313	Perfume oil	Powder	Ware house	0.0100	4	0.0413	15	1.0040	Local	Road
314	C8-16 alkyl polyglucoside	Liquid	Ware house	0.2350	1	0.2136	15	5.1984	Local	Road
315	Water	Liquid	Ware house	0.0250	99	2.4785	15	60.3091	Imported	Sea, Road
316	Orange oil terpenes	Liquid	Ware	0.1770	12	2.0920	30	25.4529	Imported	Sea,

			house							Road
317	Paraffinic hydrocarbons	Liquid	Ware house	0.1560	31	4.7652	15	115.9521	Local	Road
318	Aniline, butylaldehyde copolymer	Liquid	Ware house	0.0181	733	13.2922	15	323.4446	Local	Road
319	Benzothiazolethiol *2- Mercaptobenzothiazole *2-	Powder	Ware house	0.0010	1	0.0010	15	0.0068	Local	Road
320	Bis(2-hydroxyethyl)-p-toluidine *N,N- Diethanol-p-toluidine *N,N-	Liquid	Ware house	0.0113	1	0.0120	30	0.0045	Imported	Sea, Road
321	Ethylcaproic acid *2-	Liquid	Ware house	0.0009	1	0.0009	15	0.0214	Local	Road
322	Tributylamine	Liquid	Ware house	0.0005	2	0.0010	15	0.0094	Local	Road
323	Basic Violet 10	Liquid	Ware house	0.0001	2658	0.2658	15	6.4689	Local	Road
324	Methyl cyclo heptane	Liquid	Ware house	0.2000	66	13.2424	15	322.2327	Local	Road
325	Ethyl alcohol, cometic grade, denaturated with diethyl phthalate	Liquid	Ware house	0.0005	1739	0.8694	15	21.1556	Local	Road
326	1-Phenyl-3,5-diethyl-2-propyl-1,2-dihydropyridine	Liquid	Ware house	0.0150	1	0.0150	15	0.0497	Local	Road
327	Copper(2)acetylacetonate	Liquid	Ware house	0.0010	213	0.2133	15	5.1901	Local	Road
328	polymeric nitrogen and sulfur compounds in toluene	Powder	Ware house	0.0250	6	0.1553	15	3.7779	Local	Road
329	Dimethoxymethane Dimethyl formal Formaldehyde dimethyl acetal	Liquid	Ware house	0.0200	14	0.2713	15	6.6022	Local	Road
330	hydrotreated light naphtha	Powder	Ware house	0.1450	1	0.1450	15	0.2321	Local	Road
331	C8-9 Isoparaffins	Liquid	Ware house	0.1450	172	24.9125	15	606.2044	Local	Road
332	Methyltrichlorsilane	Gas	Ware	0.2400	3	0.7892	15	19.2031	Local	Road

			house							
333	Methylamine	Gas	Ware house	0.0500	18	0.9005	15	21.9124	Local	Road
334	Hydrocarbon Resin	Solid	Ware house	0.0250	11673	291.8344	30	3550.651 3	Imported	Sea, Road
335	Paraffin wax	Solid	Ware house	0.0250	5331	133.2634	30	1621.371 6	Imported	Sea, Road
336	Hydrogenated hydrocarbon resin	Physical Nature Solid	Ware house	0.0250	33262	831.5582	30	10117.29 14	Imported	Sea, Road
337	Waterborne dispersion of modified rosin.	Solid	Ware house	0.0250	269	6.7194	30	81.7526	Imported	Sea, Road
338	Pentaerythritol tetrakis[3-(3,5-di- tert-butyl-4-hydroxyphenyl) propionate]	Powder	Ware house	0.0200	376	7.5292	15	183.2101	Local	Road
339	Tetramethylene dimethacrylate,1,4-Butanediol dimethacrylate	Solid	Ware house	0.0250	3339	83.4739	30	1015.599 0	Imported	Sea, Road
340	TERPOLYMER : ETHYLENE- ALKYL ACRYLATE - MALEIC ANHYDRIDE	Solid	Ware house	0.0250	85	2.1190	15	51.5621	Local	Road
341	Petroleum hydrocarbon resin	Solid	Ware house	0.0250	17392	434.7931	30	5289.983 0	Imported	Sea, Road
342	Mixture of additives for plastic material stabilisation	Solid	Ware house	0.0250	39	0.9704	15	23.6124	Local	Road
343	Propanoic acid, 3,3'-thiobis-, dioctadecyl ester	Solid	Ware house	0.0250	7	0.1794	15	4.3661	Local	Road
344	Ethylene Vinyl Acetate (EVA) Copolymer	Solid	Ware house	0.0250	36835	920.8778	30	11204.01 30	Imported	Sea, Road
345	Sodium disulfite	Solid	Ware house	0.2100	3	0.6800	30	8.2737	Imported	Sea, Road
346	Antiblocking Agent	Liquid	Ware house	0.2100	0	0.0674	30	0.8200	Imported	Sea, Road
347	Naphthenic-Base Rubber Oil	Liquid	Ware house	0.0200	26	0.5252	30	6.3901	Imported	Sea, Road

348	Ethylene-1-octene copolymer Polyolefin Plastomer	Solid	Ware house	0.2100	620	130.2881	30	1585.172 4	Imported	Sea, Road
349	Ethene, homopolymer	Solid	Ware house	0.0250	70	1.7443	15	42.4456	Local	Road
350	microcrystalline wax	Solid	Ware house	0.0250	221	5.5170	30	67.1231	Imported	Sea, Road
351	Rosin ester with glycerol	Solid	Ware house	0.0250	6078	151.9549	30	1848.784 9	Imported	Sea, Road
352	polyethylene wax	Solid	Ware house	0.0250	363	9.0873	15	221.1253	Local	Road
353	Di-tert-butyl-4-methylphenol *2,6-	Powder	Ware house	0.0005	453	0.2263	15	5.5072	Local	Road
354	KOMOTAC® KS2100W	Physical Nature Solid	Ware house	0.0250	451	11.2770	30	137.2032	Imported	Sea, Road
355	Fully Refined Wax	Solid	Ware house	0.0250	9307	232.6734	30	2830.859	Imported	Sea, Road
356	Ethylene n-butyl acrylate (ENBA) copolymer	Solid	Ware house	0.0250	119	2.9792	30	36.2472	Imported	Sea, Road
357	neutral polyethylene wax	Solid	Ware house	0.0250	70	1.7620	30	21.4372	Imported	Sea, Road
358	Rutile (TiO2)	Solid	Ware house	0.0250	224	5.5894	15	136.0076	Local	Road
359	polymer with chloroethylene	Solid	Ware house	0.0250	5121	128.0298	30	1557.695 9	Imported	Sea, Road
360	Dolomite	Solid	Ware house	0.0250	656	16.4124	15	399.3691	Local	Road
361	Polyolefin	Solid	Ware house	0.0250	161	4.0331	15	98.1378	Local	Road
362	Glycerol Ester of Rosin	Solid	Ware house	0.0250	550	13.7455	15	334.4739	Local	Road
363	Gum Rosin	Solid	Ware house	0.0250	3972	99.3035	15	2416.386 3	Local	Road
364	Polyolefin Elastomer	Solid	Ware	0.0250	909	22.7242	30	276.4773	Imported	Sea,

			house							Road
365	Styrene-Ethylene/Butylene-Styrene Polymer	Solid	Ware house	0.0250	607	15.1870	30	184.7746	Imported	Sea, Road
366	Low Density Polyethylene	Liquid	Ware house	0.0250	69	1.7226	15	41.9167	Local	Road
367	Polybutene (Isobutylene/butene copolymer)	Liquid	Ware house	0.0250	123	3.0687	30	37.3358	Imported	Sea, Road
368	Precipitated Silica	Solid	Ware house	0.0250	6	0.1419	30	1.7262	Local	Road
369	Glycerol Ester of Gum Rosin	Solid	Ware house	0.0250	1100	27.4910	30	334.4739	Imported	Sea, Road
370	Terpene phenolic resin	Liquid	Ware house	0.2250	33	7.4051	15	180.1901	Local	Road
371	Vinly polymer	Liquid	Ware house	0.2350	13	3.1705	15	77.1489	Local	Road
372	Polyethylene homopolymer wax	Liquid	Ware house	0.2350	6	1.4567	15	35.4452	Local	Road
373	Hydrogenated microwax	Liquid	Ware house	0.2350	9	2.1499	15	52.3151	Local	Road
374	Natural Graphite	Solid	Ware house	0.0250	3019	75.4733	15	1836.515 9	Local	Road
375	Monoisopropanolamine Amino-2- propanol *1-	Liquid	Ware house	0.0200	167	3.3464	15	81.4279	Local	Road
376	Hydroxypropyl distarch phosphate	Powder	Ware house	0.0250	469	11.7332	15	285.5079	Local	Road
377	Pregelatinized hydroxypropyl starch	Liquid	Ware house	0.0200	181	3.6147	15	87.9585	Local	Road
378	Microspheres	Powder	Ware house	0.0250	118	2.9606	15	72.0402	Local	Road
379	polycarboxylic acid pigment dispersant	Liquid	Ware house	0.0250	151	3.7657	15	91.6319	Local	Road
380	Alcohol Ethoxylate	Liquid	Ware house	0.0200	171	3.4134	15	83.0606	Local	Road
381	Biocide preparation	Liquid	Ware	0.0200	136	2.7173	15	66.1219	Local	Road

			house							
382	Hydrotreated Naphthenic Distillate	Liquid	Ware house	0.2100	272	57.0804	30	694.4776	Imported	Sea, Road
383	Styrene butadiene copolymer	Physical Nature Solid	Ware house	0.0250	5338	133.4534	30	1623.683 5	Imported	Sea, Road
384	Hydrocarbon waxes	Physical Nature Solid	Ware house	0.0250	19	0.4752	30	5.7812	Imported	Sea, Road
385	White Mineral Oil	Liquid	Ware house	0.0200	17115	342.3020	30	4164.673 8	Imported	Sea, Road
1 380	4-6 - bis (dodecylthiomethyl )-o- cresol	Liquid	Ware house	0.0250	36	0.8875	30	10.7985	Imported	Sea, Road
1 3× /	2-(2-Hydroxy-5- methylphenyl)- benzotriazole	Powder	Ware house	0.0250	169	4.2344	30	51.5190	Imported	Sea, Road
388	Naphthenic oils	Liquid	Ware house	0.0250	2245	56.1192	30	682.7838	Imported	Sea, Road
389	cycloaliphatic hydrocarbon resins	Physical Nature Solid	Ware house	0.0250	880	22.0042	30	267.7179	Imported	Sea, Road
3411	Styrene-Butadiene-Styrene Block Copolymer	Physical Nature Solid	Ware house	0.0250	9441	236.0258	30	2871.647 2	Imported	Sea, Road
391	Tris ( 2,4-di-tert-butylphenyl ) phosphite	Powder	Ware house	0.0250	19	0.4820	30	5.8648	Imported	Sea, Road
392	HYDROCARBON , C6- 20,POLYMERS,HYDROGENATED	Physical Nature Solid	Ware house	0.0250	2018	50.4497	30	613.8051	Imported	Sea, Road
393	Infuse 9807 Olefine Block Copolymer	Physical Nature Solid	Ware house	0.0250	125	3.1175	30	37.9296	Imported	Sea, Road
394	Phenol, 2,4-bis(1,1-dimethylethyl)-, phosphite (3:1)	Powder	Ware house	0.0250	15	0.3658	30	4.4510	Imported	Sea, Road
395	Styrene-Isoprene-Styrene Polymer	Physical	Ware	0.0250	1519	37.9866	30	462.1709	Imported	Sea,

		Nature Solid								Road
396	Komotac ® Resins KA100L	Physical Nature Solid	Ware house	0.0250	386	9.6569	30	117.4919	Imported	Sea, Road
397	KOMOTAC® KF394S	Physical Nature Solid	Ware house	0.0250	1478	36.9556	30	449.6267	Imported	Sea, Road
398	KOMOTAC® RESIN KF399S	Physical Nature Solid	Ware house	0.0250	855	21.3718	30	260.0233	Imported	Sea, Road
399	KOMOTAC® KF454S	Physical Nature Solid	Ware house	0.0250	1234	30.8475	30	375.3110	Imported	Sea, Road
400	KOMOTAC® RESIN 128	Physical Nature Solid	Ware house	0.0250	8	0.2009	30	2.4444	Imported	Sea, Road
401	Kristalex(TM) 3085 Hydrocarbon Resin	Physical Nature Solid	Ware house	0.0250	1067	26.6815	30	324.6252	Imported	Sea, Road
402	LICOCENE PP 6102 GR	Physical Nature Solid	Ware house	0.0250	125	3.1175	30	37.9296	Imported	Sea, Road
403	LICOCENE PP MA 6252 GR	Physical Nature Solid	Ware house	0.0250	141	3.5224	30	42.8554	Imported	Sea, Road
404	Distillates (petroleum), hydrotreated heavy naphthenic	Liquid	Ware house	0.0200	6701	134.0167	30	1630.536 2	Imported	Sea, Road
405	Lubricant Oil	Liquid	Ware house	0.0200	403	8.0571	30	98.0283	Imported	Sea, Road
406	Polyisobutylene	Liquid	Ware house	0.0200	54	1.0746	30	13.0743	Imported	Sea
407	POLYBUTYLENE	Liquid	Ware house	0.0250	142	3.5605	30	43.3200	Imported	Sea, Road

408	Modified Rosin Pentaerythritol Ester	Physical Nature Solid	Ware house	0.0250	1539	38.4731	30	468.0893	Imported	Sea, Road
409	Plastolyn(TM) 240 Hydrocarbon Resin	Physical Nature Solid	Ware house	0.0250	711	17.7764	30	216.2800	Imported	Sea, Road
410	Quintac 3450	Physical Nature Solid	house	0.0250	93	2.3270	30	28.3122	Imported	Sea, Road
411	Regalite(TM) C6100L Hydrocarbon Resin	Physical Nature Solid	house	0.0250	1350	33.7501	30	410.6266	Imported	Sea, Road
412	Regalite(TM) S1100 Hydrocarbon Resin	Physical Nature Solid	Ware house	0.0250	3	0.0840	30	1.0220	Imported	Sea, Road
413	Regalite(TM) S5100 Hydrocarbon Resin	Physical Nature Solid	Ware house	0.0250	2	0.0552	30	0.6720	Imported	Sea, Road
414	Amorphous Poly-Alpha- Olefin Copolymer	Physical Nature Solid	Ware house	0.0250	28	0.7013	30	8.5320	Imported	Sea, Road
415	Styrene-Isoprene-Styrene block copolymer	Physical Nature Solid	Ware house	0.0250	4264	106.6109	30	1297.099 8	Imported	Sea, Road
416	2-(2H-Benzotriazol-2-yl)-4,6- ditertpentylphenol	Powder	Ware house	0.0250	3	0.0727	30	0.8844	Imported	Sea, Road
417	Isoprene-Styrene Polymer	Physical Nature Solid	Ware house	0.0250	3678	91.9522	30	1118.751 7	Imported	Sea, Road
418	Vector 8508 A	Physical Nature Solid	Ware house	0.0250	23	0.5714	30	6.9517	Imported	Sea, Road
419	Vestoplast 704	Physical Nature		0.0250	1	0.0250	30	0.1750	Imported	Sea, Road

		Solid								
420	Polyester polyol	Liquid	Ware house	0.0200	26642	532.8473	30	6482.975 2	Imported	Sea, Road
421	Polypropylene glycol	Liquid	Ware house	0.0200	9474	189.4716	30	2305.237 4	Imported	Sea, Road
422	Saturated polyester containing hydroxyl-groups	Solid	Ware house	0.0250	3733	93.3252	30	1135.456 4	Imported	Sea, Road
423	hydroxyl-bearing copolyester	Solid	Ware house	0.0250	1018	25.4439	30	309.5678	Imported	Sea, Road
424	Copolyester	Solid	Ware house	0.0250	710	17.7612	30	216.0946	Imported	Sea, Road
425	polycaprolactone-copolyester polyurethane	Solid	Ware house	0.0250	586	14.6376	30	178.0904	Imported	Sea, Road
426	4,4'-diphenylmethane diisocyanate	Liquid	Ware house	0.0250	528	13.2051	30	160.6618	Imported	Sea, Road
427	Hydroxy-functional acrylic resin	Solid	Ware house	0.0250	522	13.0401	30	158.6548	Imported	Sea, Road
428	n-butyl methacrylate copolymer	Solid	Ware house	0.0250	733	18.3321	30	223.0401	Imported	Sea, Road
429	2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2- propenoate, 2-hydroxyethyl 2- methyl-2-propenoate and methyl 2-methyl-2-propenoate	Solid	Ware house	0.0250	207	5.1677	30	62.8734	Imported	Sea, Road
430	Haerter OZ	Solid	Ware house	0.0250	185	4.6300	30	56.3314	Imported	Sea, Road
431	Titanium dioxide	Liquid	Ware house	0.0250	179	4.4729	30	54.4208	Imported	Sea, Road
432	Isophorone diisocyanate	Liquid	Ware house	0.0200	198	3.9596	30	48.1747	Imported	Sea, Road
433	Poly(propylene glycol)	Liquid	Ware house	0.0200	192	3.8385	30	46.7023	Imported	Sea, Road
434	cycloaliphatic polyisocyanate	Solid	Ware house	0.0250	112	2.8104	30	34.1929	Imported	Sea, Road

435	Diethylene glycol dibenzoate	Liquid	Ware house	0.0200	1491	29.8187	30	362.7936	Imported	Sea, Road
	Bis(1,2,2,6,6-pentamethyl-4- piperidyl)sebacate	Liquid	Ware house	0.0250	2532	63.2902	30	770.0307	Imported	Sea, Road
	Phenol, 2-(2H-benzotriazol-2-yl)- 4,6-bis(1,1-dimethylpropyl)	Solid	Ware house	0.0250	55	1.3771	30	16.7542	Imported	Sea, Road
438	phenylenebis(oxy)]bisethanol *2,2'-[1,3- Resorcinol-bis(2-hydroxyethyl) ether	Solid	Ware house	0.0250	40	0.9932	30	12.0842	Imported	Sea, Road
439	aromatic C9-10 hydrocarbons	Solid	Ware house	0.0250	39	0.9779	30	11.8973	Imported	Sea, Road
440	Ethylene bis(oxyethylene) bis-(3- (5-tert-butyl-4-hydroxy-m- tolyl)propionate)	Solid	Ware house	0.0250	29	0.7286	30	8.8644	Imported	Sea, Road
441	1,4-Cyclohexanedimethanol	Solid	Ware house	0.0250	27	0.6626	30	8.0616	Imported	Sea, Road
442	2,2'-dimorpholinodiethylether	Liquid	Ware house	0.0200	25	0.4934	30	6.0029	Imported	Sea, Road
443	Trimethylolpropane triacrylate	Solid	Ware house	0.0250	15	0.3824	30	4.6528	Imported	Sea, Road
444	3-Glycidoxypropyltrimethoxysilane	Liquid	Ware house	0.0200	8	0.1610	30	1.9586	Imported	Sea, Road
445	Dimethylolpropionic acid	Solid	Ware house	0.0250	8	0.2039	30	2.4805	Imported	Sea, Road
	saturated hydroxyl-groups bearing copolyester	Solid	Ware house	0.0250	5	0.1231	30	1.4975	Imported	Sea, Road
447	hydroxyphenylbenzotriazole	Liquid	Ware house	0.0200	5	0.1078	30	1.3111	Imported	Sea, Road
448	3-isocyanatopropyltrimethoxysilane	Liquid	Ware house	0.0250	2	0.0571	30	0.6952	Imported	Sea, Road
	Saturated copolyester containing hydroxyl groups	Solid	Ware house	0.0250	3	0.0836	30	1.0174	Imported	Sea, Road
450	1,2-Bis(pentabromophenyl) ethane	Solid	Ware	0.0250	2	0.0417	30	0.5071	Imported	Sea,

			house							Road
451	Carbonate	Solid	Ware house	0.0250	2	0.0379	30	0.4613	Imported	Sea, Road
452	Hexanedioic acid, polymer with 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol and 1,6-hexanediol	Solid	Ware house	0.0250	1	0.0313	30	0.3812	Imported	Sea, Road
453	2,5-Bis(5-tert-butyl-2- benzoxazolyl)thiophene	Solid	Ware house	0.0250	1	0.0250	30	0.2755	Imported	Sea, Road
454	p-Toluenesulfonyl Isocyanate:	Liquid	Ware house	0.0200	1	0.0200	30	0.2601	Imported	Sea, Road
455	Polyethylene Polymer	Solid	Ware house	0.0250	1	0.0250	30	0.0341	Imported	Sea, Road
456	Phosphoric acid	Liquid	Ware house	0.0200	7160	143.2033	30	1742.307 1	Imported	Sea, Road
457	dibutylhydroxytoluene	Solid	Ware house	0.0250	1	0.0250	30	0.0270	Imported	Sea, Road
458	Natural Cis 1, 4 Polyisoprene	Liquid	Ware house	0.2100	1	0.2222	15	5.4066	Local	Road
459	Propanon *2- Dimethylketon	Liquid	Ware house	0.1600	949	151.8316	15	3694.569 1	Local	Road
460	Acetic acid ethyl ester	Liquid	Ware house	0.1500	1537	230.5588	15	5610.264 3	Local	Road
461	ISOPROPANOL,2 PROPANOL,PROPYL ALCOHOL,ETHYL CARBINOL	Liquid	Ware house	0.2100	3	0.7018	15	17.0767	Local	Road
462	Methyl ethyl ketone, ethyl methyl ketone.	Liquid	Ware house	0.0250	5690	142.2543	15	3461.521 1	Local	Road
463	Bis(5'-tert-butyl-2- benzoxazolyl)thiophene *2,5-	Liquid	Ware house	0.0300	1	0.0300	30	0.0028	Imported	Sea, Road
464	Di-isocyanatotoluene	Liquid	Ware house	0.2100	177	37.2691	30	453.4411	Imported	Sea, Road
465	hydrophilic aliphatic polyisocyanate	Solid	Ware house	0.0250	189	4.7128	30	57.3393	Imported	Sea, Road
466	Alkyl Phenolic Resin	Solid	Ware	0.0250	170	4.2539	30	51.7558	Imported	Sea,

			house							Road
467	Sodium dichloro isocyanuate dihydrate	Solid	Ware house	0.0250	2	0.0514	30	0.6250	Imported	Sea, Road
468	Butanediol dimethacrylate *1,4- Tetramethylene dimethacrylate	Liquid	Ware house	0.1800	1	0.0954	15	2.3212	Local	Road
469	Polychloroprene	Solid	Ware house	0.0250	356	8.9080	30	108.3809	Imported	Sea, Road
470	Polyoxyethylene (40) octylphenol ether	Solid	Ware house	0.0250	65	1.6276	30	19.8019	Imported	Sea, Road
471	Chlorinated rubber	Solid	Ware house	0.0250	7	0.1625	15	3.9548	Local	Road
472	High chlorinated polyethylene 99.5+	Solid	Ware house	0.0250	5	0.1373	30	1.6700	Imported	Sea, Road
473	Thermoplastic Polyurethane(Adipic Acid-1.4Butanediol-HDI Copolymer)	Solid	Ware house	0.0250	1125	28.1184	30	342.1067	Imported	Sea, Road
474	Precipitated synthetic amorphous silica	Solid	Ware house	0.0250	14	0.3408	30	4.1464	Imported	Sea, Road
475	Multifunctional polycarbodiimide - Water Solution	Solid	Ware house	0.0250	1	0.0250	15	0.2735	Local	Road
476	2 HEMA ( 2-HYDROXYETHYL METHACRYLATE)	Liquid	Ware house	0.2100	20	4.1780	30	50.8322	Imported	Sea, Road
477	Poly 2-chlorobutadiene	Solid	Ware house	0.0250	540	13.4957	30	164.1976	Imported	Sea, Road
478	alpha-3-(3-(2H-benzotriazol-2- yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-omegahydroxypoly(oxyethylene) and alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-ydroxyphenyl)propionyloxypoly(ox	Solid	Ware house	0.0250	1	0.0295	15	0.7177	Local	Road

	yethylene)									
479	Adronal; Cyclohexyl alcohol; Hexalin; Hexahydrophenol;Hydroxycyclohex ane, Cyclohexyl ketone, Nicotinic acid adenine dinucleotide	Liquid	Ware house	0.0250	5	0.1183	15	2.8784	Local	Road
480	Polyoxyethylene stearyl ether	Liquid	Ware house	0.0200	1	0.0200	30	0.1012	Imported	Sea, Road
481	Rosin ester with pentaerythritol	Solid	Ware house	0.0250	30	0.7420	30	9.0278	Imported	Sea, Road
482	alpha-Hydroxypropionic acid	Liquid	Ware house	0.2100	3	0.5470	15	13.3110	Local	Road
483	Alkylaryl polyglycol ether	Solid	Ware house	0.0250	11	0.2636	30	3.2069	Imported	Sea, Road
484	Polymer polychlorepene	Solid	Ware house	0.0250	1168	29.2053	30	355.3315	Imported	Sea, Road
485	chlorinated polymer containing max. 2,5 % wt.toluene	Solid	Ware house	0.0250	40	1.0064	30	12.2443	Imported	Sea, Road
486	Cyclohexane,Hexanaphthene	Liquid	Ware house	0.0200	4527	90.5397	30	1101.565 9	Imported	Sea, Road
487	Benzene carboxylic acid,Benzene formic acid	Liquid	Ware house	0.2100	1	0.2100	30	0.1470	Imported	Sea, Road
	White phosphoric acid: Phosphoric acid; Ortho-phosphoric acid	Liquid	Ware house	0.2100	1	0.2848	15	6.9296	Local	Road
1 484	Triglyceride (Castor Oil Hydrogenated)	Solid	Ware house	0.2100	3	0.6611	15	16.0863	Local	Road
	benzyl hydride / methylbenzene / phenylmethane / tolunol / toluol oil / toluole	Liquid	Ware house	0.0250	636	15.9112	15	387.1733	Local	Road
491	PROPYLENE GLYCOL DIACETATE,1,2-Propanediol, diacetate	Liquid	Ware house	0.2100	6	1.2160	30	14.7949	Imported	Sea, Road
	Propylene glycol monomethyl ether acetate,2-Methoxy-1-propyl	Solid	Ware house	0.0250	51	1.2755	30	15.5192	Imported	Sea, Road

	acetate									
493	Dihydrogen oxide,Distilled water	Liquid	Ware house	0.2100	65	13.6665	15	332.5523	Local	Road
494	1,6 hexanediol diacrylate.	Liquid	Ware house	0.2100	5	1.0941	30	13.3110	Imported	Sea, Road
495	Ethanedioic acid, dihydrate; oxalic acid dihydrate	Solid	Ware house	0.0250	2	0.0502	15	1.2207	Local	Road
496	N-(2-Aminoethyl)-3- aminopropylmethyldimethoxysilane	Solid	Ware house	0.0250	1	0.0250	30	0.0068	Imported	Sea, Road
497	SYNTHETIC ALCOHOL ETHOXYLATE	Solid	Ware house	0.0250	77	1.9332	30	23.5204	Imported	Sea, Road
498	High chlorinated polyethylene	Solid	Ware house	0.0250	13	0.3251	30	3.9548	Imported	Sea, Road
499	Organic Polyurethane type water,Compound soluble polymer	Solid	Ware house	0.0250	4	0.0957	30	1.1642	Imported	Sea, Road
500	SODIUM SILICATE,SODIUM SILICATE SOLUTION	Solid	Ware house	0.0250	1	0.0250	30	0.1887	Imported	Sea, Road
501	Amorphous silicon dioxide.	Solid	Ware house	0.0250	28	0.7070	30	8.6017	Imported	Sea, Road
502	vinyl chloride copolymer	Solid	Ware house	0.0250	19	0.4857	30	5.9097	Imported	Sea, Road
503	2-(6-methoxybenzofuran-2-yl)- 1,3-dimethyl-5- (methylsulphonyl)1H- benzimidazolium acetate	Solid	Ware house	0.0250	1	0.0250	30	0.0063	Imported	Sea, Road
504	poly(ethylene-vinyl acetate)	Solid	Ware house	0.0250	156	3.9077	30	47.5442	Imported	Sea, Road
505	Polyoxyethylene lauryl ether	Solid	Ware house	0.0250	1	0.0250	30	0.2954	Imported	Sea, Road
506	Aqueous, Organic Biodegradable Solvent.	Solid	Ware house	0.0250	4	0.1006	30	1.2242	Imported	Sea, Road
507	Disodium 2,2'(or 3,3')oxybis-[(5 or 2)dodecylbenzenesulphonate	Solid	Ware house	0.0250	1	0.0250	30	0.0739	Imported	Sea, Road
508	linear polyurethane	Liquid	Ware	0.0210	6	0.1226	30	1.4914	Imported	Sea,

			house							Road
509	1,2-Propanediol, diacetate	Solid	Ware house	0.0250	44	1.0941	30	13.3110	Imported	Sea, Road
510	Tridecyl methacrylate,Dodecyl methacrylate	Solid	Ware house	0.0250	8	0.1908	30	2.3212	Imported	Sea, Road
511	m-Toluic acid	Solid	Ware house	0.0250	1	0.0250	30	0.0147	Imported	Sea, Road
512	Fluorescent whitening agent	Solid	Ware house	0.0250	2	0.0574	30	0.6978	Imported	Sea, Road
513	2-methoxy-1-methylethyl Acetate	Solid	Ware house	0.0250	9	0.2261	30	2.7504	Imported	Sea, Road
514	BENZOYLBENZENE	Solid	Ware house	0.0250	4	0.1094	30	1.3310	Imported	Sea, Road
515	Cyclohexane, methyl- HexahydrotolueneCyclohexylmetha ne	Liquid	Ware house	0.0200	6796	135.9122	30	1653.598 8	Imported	Sea, Road
516	Additive(Arylalkylbiphenylolpolygly col ether 2,4,7,9-tetramethyldec-5-yne-4,7-diol)	Solid	Ware house	0.0250	1	0.0250	30	0.0605	Imported	Sea, Road
517	Alcohol, Methyl Hydroxide, Methyl Hydrate.	Liquid	Ware house	0.0250	418	10.4505	15	254.2966	Local	Road
518	O-hydroxydiphenyl; O-Xenol;2- hdroxybiphenyl,biphenyl-2-ol,p- phenylphenol	Liquid	Ware house	0.2100	13	2.7775	30	33.7930	Imported	Sea, Road
519	pentaerythritol tetrakis(3-(3,5-di- tert-butyl-4- hydroxyphenyl)propionate)		Ware house	0.0250	55	1.3688	15	33.3073	Local	Road
520	Chloroprene Rubber	Solid	Ware house	0.0250	875	21.8798	15	532.4093	Local	Road
	Synthetic, hydrophobic, amorphous silica, produced via flame hydrolysis	Powder	Ware house	0.0100	147	1.4739	15	35.8656	Local	Road
522	Vinyltris[(2-	Liquid	Ware	0.2000	15	2.9299	15	71.2932	Local	Road

	butylidene)iminooxy]silane Butanone oximino) butane *2,2- Bis-(2- Vinyl Oximino Silane		house							
523	Aminopropyl)trimethoxysilane *(3-	Liquid	Ware house	0.0250	26	0.6537	15	15.9071	Local	Road
524	Preparation of vinyl oximino silane and tetra oximino silane	Liquid	Ware house	0.0500	20	1.0059	15	24.4777	Local	Road
525	Aluminum in mineral oil	Powder	Ware house	0.0200	218	4.3657	15	106.2312	Local	Road
526	Sorbitan monolaurate ethoxylated	Pasty	Ware house	0.2040	1	0.2752	15	6.6972	Local	Road
527	Aluminium Silicate Hydrate	Powder	Ware house	0.0250	57	1.4340	15	34.8933	Local	Road
528	Dimethyltin dineodecanoate	Semi- Pasty	Ware house	0.0180	229	4.1257	15	100.3931	Local	Road
529	Gluconic acid sodium salt	Liquid	Ware house	0.0200	160	3.2024	15	77.9247	Local	Road
7 711	Hydroxyethylidene diphosphonic acid	Liquid	Ware house	0.0200	287	5.7319	15	139.4762	Local	Road
531	Iron(2+)sulfate	Powder	Ware house	0.0250	20	0.4887	15	11.8929	Local	Road
532	Potassium phosphate ester	Liquid	Ware house	0.0250	458	11.4419	15	278.4188	Local	Road
	Carbonic acid, manganese (2+) salt (1:1)	Powder	Ware house	0.0250	209	5.2192	15	126.9999	Local	Road
534	Nitrilotriacetic acid trisodium salt	Powder	Ware house	0.0250	66	1.6550	15	40.2712	Local	Road
535	Hydroxylammonium sulfate	Powder	Ware house	0.0250	7	0.1775	15	4.3201	Local	Road
536	Nickel Nitrate	Liquid	Ware house	0.0250	297	7.4132	15	180.3883	Local	Road
537	Hexafluorosilicic acid	Liquid	Ware house	0.0200	242	4.8457	15	117.9125	Local	Road
538	Caustic Potash Flake	Powder		0.0250	23	0.5872	15	14.2890	Local	Road

			house							
539	Demineralized Water	Powder	Ware house	0.0500	3058	152.8892	15	3720.303 9	Local	Road
540	C9-11 alcohol ethoxylates	Liquid	Ware house	0.0200	27	0.5301	15	12.8996	Local	Road
541	Ethoxylated Fatty Alcohols	Liquid	Ware house	0.0250	68	1.6964	15	41.2784	Local	Road
542	Carbony diamide	Solid	Ware house	0.0250	62	1.5558	15	37.8567	Local	Road
543	2-Methyl-2,4-pentanediol	Liquid	Ware house	0.2100	5	1.1099	15	27.0074	Local	Road
544	Sodium acetate	Solid	Ware house	0.2100	0	0.0407	15	0.9896	Local	Road
545	Dimethyl ketone,Dimethyl carbonyl,β- Ketopropane,Propanone[3],2- Propanone[2].	Liquid	Ware house	0.0250	2	0.0508	15	1.2358	Local	Road
546	Polyvinyl Alcohol	Solid	Ware house	0.0250	546	13.6486	30	166.0576	Imported	Sea, Road
547	Mineral oil based Defoamer	Liquid	Ware house	0.2100	2	0.3641	15	8.8602	Local	Road
548	Ethyl acetic ester, Ethyl ester, Ethyl ethanoate, Acetoxyethane,Acetic acid ethyl ester.	Liquid	Ware house	0.2100	1	0.2100	15	0.3445	Local	Road
549	Vinyl acetate, ethylene copolymer	Solid	Ware house	0.0250	31608	790.2092	30	9614.211 9	Imported	Sea, Road
550	1,2,3-Propanetriol	Liquid	Ware house	0.0025	1388	3.4690	15	84.4132	Local	Road
551	Aluminium chloride	Liquid	Ware house	0.2100	72	15.0973	30	183.6840	Imported	Sea, Road
552	Boric acid granular	Solid	Ware house	0.2100	2	0.3280	15	7.9814	Local	Road
553	Polyurethane system (Mixture of	Liquid	Ware	0.0250	111	2.7671	15	67.3332	Local	Road

	Diphenylmethanediisocyanate isomers and homologues, Diphenylmethane 4,4'diisocyanate or Diphenylmethane 4,4'diisocyanate 4,4'diisocyanate		house							
554	Sodium acid sulphate	Solid	Ware house	0.0250	1	0.0250	15	0.1698	Local	Road
555	Acetic acid	Liquid	Ware house	0.2100	1	0.2100	15	0.3445	Local	Road
556	Ethylene-vinyl acetate copolymer emulsion	Liquid	Ware house	0.2100	2711	569.3137	30	6926.650 1	Imported	Sea, Road
557	Ethylene glycol diacetate (EGDA)	Liquid	Ware house	0.2100	92	19.2505	30	234.2139	Imported	Sea, Road
558	Diammonium peroxodisulphate	Solid	Ware house	0.0250	3	0.0691	15	1.6806	Local	Road
559	Sodium bicarbonate	Solid	Ware house	0.0250	1	0.0250	15	0.2742	Local	Road
560	Glycerol Triacetate	Solid	Ware house	0.2100	3	0.5472	15	13.3152	Local	Road
561	Acetic acid ethenyl ester, polymer with chloroethene and eth-ene	Solid	Ware house	0.0250	284	7.0975	15	172.7049	Local	Road
562	Maize starch	Solid	Ware house	0.0250	634	15.8430	15	385.5120	Local	Road
563	Iron trichloride	Solid	Ware house	0.0250	1	0.0250	15	0.0148	Local	Road
564	Triazine 2,4,6(1H,3H,5H) trione,	Liquid	Ware house	0.0210	6	0.1277	15	3.1084	Local	Road
565	1,21-Dimethylethyl Hydroperoxide	Solid	Ware house	0.0250	1	0.0336	15	0.8185	Local	Road
566	Alkylphenol ethoxylate	Solid	Ware house	0.0250	8	0.1899	15	4.6216	Local	Road
567	Nonionic Surfactant	Solid	Ware house	0.0250	2	0.0466	15	1.1346	Local	Road
568	Calcite	Solid	Ware	0.0250	233	5.8250	15	141.7417	Local	Road

			house							
569	Additive Plasticizer or 2,2,4- trimethyl-1,3-pentanediol diiso- butyrate	Solid	Ware house	0.2100	1	0.1594	15	3.8796	Local	Road
570	Polyethyleneimine	Solid	Ware house	0.0250	99	2.4856	15	60.4841	Local	Road
571	N-Methylolacrylamide	Liquid	Ware house	0.2100	2	0.4965	15	12.0827	Local	Road
572	Ammonia	Liquid	Ware house	0.2100	48	10.0251	15	243.9437	Local	Road
573	Mixture of Water,Methyl Alcohol and formaldehyde	Liquid	Ware house	0.2100	2	0.3666	15	8.9215	Local	Road
574	Ethenyl acetate	Liquid	Ware house	0.0250	2309	57.7366	15	1404.923 2	Local	Road
575	1, 2-Benzenedicarboxylic acid	Liquid	Ware house	0.2100	6	1.3614	15	33.1280	Local	Road
576	Hydrogen peroxide	Liquid	Ware house	0.2100	105	22.0442	15	536.4101	Local	Road
577	Composed of White mineral oil,Distillates (petroleum), hydrotreated heavy paraffinic,Aluminium Tristereate	Liquid	Ware house	0.2100	4	0.8561	15	20.8313	Local	Road
578	Sodium formaldehyde sulfoxylate	Solid	Ware house	0.0250	64	1.5902	15	38.6955	Local	Road
579	mineral oil, fatty acid condensate, polyether	Liquid	Ware house	0.2100	1	0.2725	15	6.6311	Local	Road
580	Mixture, containing 5-Chloro-2- methyl-2H-isothiazol-3-one and 2- Methyl-2H-isothiazol-3-one (3:1)	Liquid	Ware house	0.2100	48	10.0987	15	245.7362	Local	Road
581	Fatty alcohol polyglycolether in aqueous solution	Solid	Ware house	0.0250	8	0.2040	15	4.9650	Local	Road
582	Vinyl acetate	Powder	Ware house	0.0250	19344	483.6060	15	11767.74 59	Local	Road

## 2.7 Resource optimization/recycling and reuse envisaged in the project

To conserve the water, various recycle/ reuse schemes and most energy efficient technology will be selected and implemented at proposed green field project.

## 2.8 Availability of water its source, energy/power requirement and source

## 2.8.1 Water Requirement and Source

The total water requirement will be 239 CMD. The water will be supplied by MIDC Kurkumbh. The details of water requirement are given in Table 2-5.

#### 2.8.2 Power Requirement

Power requirement for project is made available through MSEDCL.

Power required as connected load: 6531 KW Power required as operation load: 4467 KVA

## 2.8.2.1 Emergency power

2 Nos. D.G Sets having capacity 2000 KVA each will be required for proposed green field project.

## 2.8.3 Fuel Requirement

Fuel	Total Fuel Quantity
FO	553 Kg/Hr
HSD	1300 Lit/Hr

# 2.9 Quantity of wastes to be generated (liquid and solid) and scheme for their management/disposal

## 2.9.1 Gaseous Emissions

Details of gaseous emissions from Flue gas are given in Table 2-4

Table 2-3: Details of emissions from flue gas

Sr. No.	Pollutant	Source of Emission	Emission rate
1.	S02	Boilers & Thermopac	13.83 g/s
2.	SPM	Boilers & Thermopac	0.184 g/s

Note: Emission rate given is based on 100% fuel consumption

Details of stack mitigation measures are given in Table 2-4.

Table 2-4: Details of stacks along with their mitigation measures

	Thermopack	Boiler	DG set	DG set
Capacity	25 Lac Kcal/Hr	3 TPH	2000 KVA	2000 KVA
Fuel type	FO	FO	HS	SD
Fuel quantity	333 Kg/Hr	220Kg/Hr	650 Lit/Hr	650 Lit/Hr
MOC	MS	MS		
Shape	Round	Round	Round	Round
Diameter (m)	0.3	0.45	0.1	0.1
Stack Height m (above ground level)	40	35	30	30
Gas temperature (0 C)	135	110	150	150
APC system	Stack	Stack	Stack & acoustic enclosure	Stack & acoustic enclosure

## 2.9.2 Water Requirement & Effluent Generation

Table 2-5: Details of Raw water consumption

Particulars	Consumption	Loss /gain	Effluent
Water Requirement	(CMD)	(CMD)	(CMD)
Domestic	33	7	27
Industrial process + Floor &	84	50	34
equip. washing			
Cooling Tower	59	53	6
Make up water Boiler (DM water + chillar)	23	20	3
Gardening	40	40	0
Total	239	170	70

#### **Treatment Scheme for Trade and Domestic Effluent**

**Table 2-6: ETP Characteristics** 

Parameter	Unit	Primary Treatment	Secondary Treatment	Tertiary treatment	Final treated water
Flow	m3/day	43	138	138	138
рН		6.5 -8.5	7 - 8	7 – 8	6.0 -8.5
COD	mg/l	< 10000	< 7000	< 450	<250
BOD₃ days 27°C	mg/l	< 5000	< 3500	< 250	< 30
O & G	mg/l	< 10	< 10	< 10	< 10
TSS	mg/l	< 500	< 100	< 100	< 100
TDS	mg/l	< 6000	< 5100	< 1800	< 2100

**Note :** Trade effluent 43 CMD will be collected in collection pit & it will be pumped to the existing ETP of Henkel Adhesive Technologies premises located at plot No. D-4/1. The pumped water from Henkel D-4/2 will be treated in conventional ETP Consisting of Primary, secondary and tertiary Treatment. After treatment it will be sent to CETP Kurkumbh. The Capacity of ETP is 150 CMD & it is sufficient to treat total effluent of 138 CMD which consist 43 CMD effluent from Henkel D- 4/2, 85 CMD from sister concern industry Henkel D-4/1 & 10 CMD from Henkel Anand. Products of this all Henkel units are in same category therefore the effluent Characteristics is same.

#### **Primary treatment**

The system will be designed to treat 138 m3/day of waste. This Waste water flows to hold tank from production plants. From hold tank effluent shall be pumped to the bar screen, here coarse solid are trapped and removed. From bar screen effluent goes to oil and grease trap where oil and grease traces are removed. From oil & grease trap effluent flows to neutralization tanks which also serve as equalization tanks. The effluent shall be equalized/ neutralized by adding Acid/ Alkali and also homogenized contents of the equalization tank are mixed with blown air by air blower and diffuser arrangement. The

effluent then pumped to the flash mixer provided with alum dosing as coagulant & to enhance the formation of flocks it is passed through Flocculation Tank where Polyelectrolyte is added. From Flocculation Tank effluent flows to primary clarifier where primary sludge will settle at the bottom and the clear overflow will enter the bio reactor. Primary clarifier shall be provided with clarifier mechanism.

#### 2.2 Secondary Treatment.

The secondary Treatment is based on the principal of aerobic biological oxidation. Considering the BOD concentration, a two stage series biological oxidation is offered. Bio-reactors contain biological mass kept in suspension. The mixing and oxygen transfer within the bio-reactors shall be done by fine bubble diffusers. The MLSS from the Bio-Reactors shall over-flow to secondary clarifiers (with clarifier mechanism) for settling. Settled bio-mass shall be recycled back to bio-reactor to maintain the MLSS concentration and excess bio-mass wasted periodically.

## 2.3 Tertiary treatment:

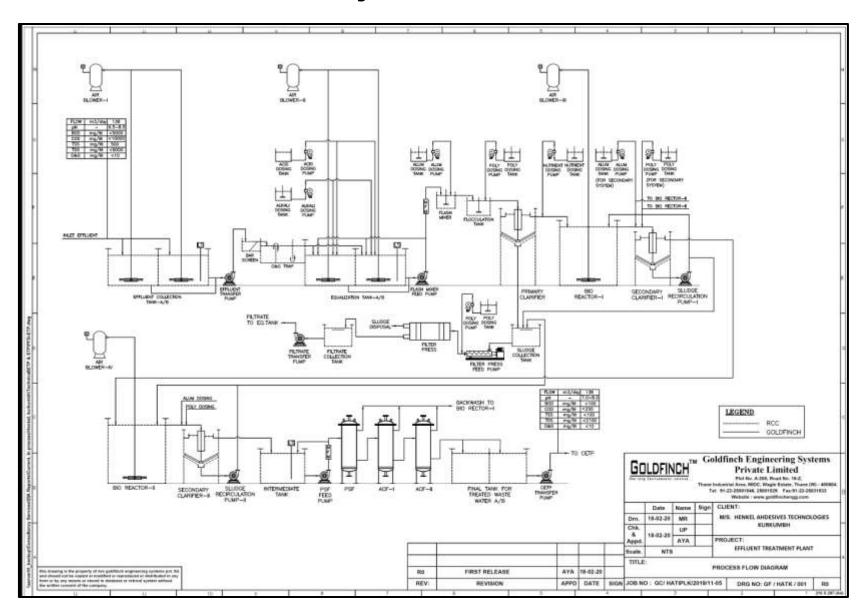
The system will be designed to treat 150 m3/day of waste .This biologically treated sewage from intermediate tank shall be pumped through a pressure sand filter (PSF) for removing any fine solids escaping the secondary settling tank & then through Activated Carbon filter for removal of odor & color.

Treated water from the final tank will be sent to CETP for final disposal.

## 2.4 Sludge Handling.

The sludge generated from the primary and secondary settling tanks will be collected in sludge collection tank and pumped by screw pumps to filter press. The cake obtained from the filter press will be sent for disposed to notified common Hazardous Waste Treatment Storage Disposal Facility. The filtrate from the filter press will be recycled to equalization tank.

## **Schematic diagram of Effluent Treatment Scheme**



#### **Treatment Scheme for Domestic Wastewater**

Domestic wastewater will be treated in STP of capacity 90 CMD of Henkel Adhesive Technologies premises located at plot No. D-4/1 which is adjacent to the plot D-4/2. Treated wastewater will be recycled and reused for the gardening in non-monsoon season and for utilities in monsoon season after disinfection.

#### 2.9.3 Details of Hazardous wastes

The types of Hazardous wastes generated from the project, method of disposal is shown in below table 2-7

Table 2-7: Details of Hazardous Solid waste along with the Category and disposal method

Sr. No.	Category No.	Type of Waste	Unit	Total Quantity	From	Disposal
1.	21.1	Adhesive Waste (filter residue/cleaning/ scrap/QC/cotton waste/used PPE)	МТРА	850	All operating areas	CHWTSDF
2.	5.1	Used lube oil	MTPA	36	All operating areas	CHWTSDF
3.	23.1	Waste residue	MTPA	30	Return from Customer	CHWTSDF
4.	3.3	Oil filters	MTPA	23	Thermopack	CHWTSDF
5.	15.2	Asbestos gasket	MTPA	1.64	Engg. Packing Material	CHWTSDF
6.	26.2	Spent solvent	MTPA	122	Cleaning of equipment	CHWTSDF
7.	33.1	Empty Hazardous drums/barrels	МТРА	4000	QC retain sample/leak material/ blending /Painting drums	CHWTSDF/ Authorized vendor
8.	23.1	Resin waste	MTPA	5	Softener Plant	CHWTSDF
9.	35.3	ETP Sludge	MTPA	400	ETP	CHWTSDF
10	35.3	Spent carbon	MTPA	15	ETP	CHWTSDF
11.	23.1	Scrubber waste	MTPA	6	Scrubber	
12.	27.1	Silicon - containing	MTPA	160	Production plant	То

		residues				CHWTSDF
13.	23.1	Process waste & residues	МТРА	95	Production plant	To CHWTSDF
14	33.1	Discarded containers / barrels / liners	MTPA	610	All operating areas	CHWTSDF

## Other waste:

Sr. No.	Description	Total (MTPA)	Disposal
1.	Used batteries	1.0	Authorized Recycler
2.	Bio-medical wastes	10	Authorized Recycler
3.	E-waste	1.2	Authorized Recycler

## **Non- Hazardous Waste:**

Sr. No.	Description	Total (MTPA)	Disposal
1.	Pipes, steel structures, valves, pumps	135	Sale to authorized vendor
2.	Engg Wastes (Nut bolt, fasteners, storage rack bars etc.)	40	Sale to authorized vendor
3.	Metal drums/Waste	138	Sale to authorized vendor
4.	Poly bag/Plastic ,Jumbo Bags with liners, Office waste, Glass scrap, Paper bags	826	Sale to authorized vendor
5.	HDPE Drums	12	Sale to authorized vendor
6.	Wooden scrap/ Pallet	900	Sale to authorized vendor
7.	STP sludge	20	Will be used as manure for gardening after analysis and approval from the competent authority
8.	Used PPEs	2	Sale to authorized vendor
9.	Empty chemical bottles and Glassware	2	Sale to authorized vendor

10.	Floor tiles and Construction waste	17	Sale to authorized vendor
11.	Canteen Waste	142	Sale to authorized vendor
12.	Cotton waste	113	Sale to authorized vendor
13.	Poly bag/Plastic /Cardboard	57	Sale to authorized vendor

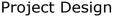
# 2.10 Schematic representations of the feasibility drawing which gives information of EIA purpose.

**Project Identification** 

what environmental impacts are normally associated with such type of projects being proposed?

Pre-feasibility Analysis

Is the Project feasible from an environment point of view?



- (a) What negative environmental impacts could arise if the proposed project is implemented with proposed design?
  - (b) Is there alternative design with less environmental impacts?

### **Project Appraisal**

Have all the environmental concerns associated with the project been eliminated?

#### **Project Implementation**

What environmental concerns might arise at the implementation phase of the project?



Preparation of an Environment Monitoring and Evaluation Plan

- (a) What environment monitoring indicators are required to ensure that the implementation of components of the project will be executed within environmentally sound limits?
- (b) What is required to ensure that the recommended environmental control measures will be implemented and enforced?

(Prepare a comprehensive environment monitoring and management plan)



Post EIA Monitoring and Environment Audit

- (a) Is the implementation of components of the project being executed in an environmentally sound manner?
- (b) Are all the recommended environmental control measures being implemented and enforced?
- (c) Are there any environmental impacts that were earlier not anticipated when EIA was done?

( Identify gaps and corrective action )

#### 3.0 SITE ANALYSIS

### 3.1 Connectivity

- Proposed unit is planned at Plot No. D-4/2
- The nearest city from the site is Daund at 9 Km.
- The nearest railway station is Daund at 9 Km.
- The nearest airport is at Pune at 66 Km.
- Site is well connected to by road to Pune-Solapur National Highway (NH09) at distance of 500 m.

#### 3.2 Land Form, Land use and Land ownership

The proposed land is situated in approved chemical zone of MIDC where land use is industrial. Land is owned by MIDC and is leased for 99 years.

## 3.3 Topography

The proposed industry is located at Latitude– 18°24'24.18"N and Longitude-74°30'20.64"E -. Elevation above mean sea level is: 643 m. Toposheet of the site is shown below. The study area (10 km radius) around the project site exhibits slightly undulating to flat terrain.

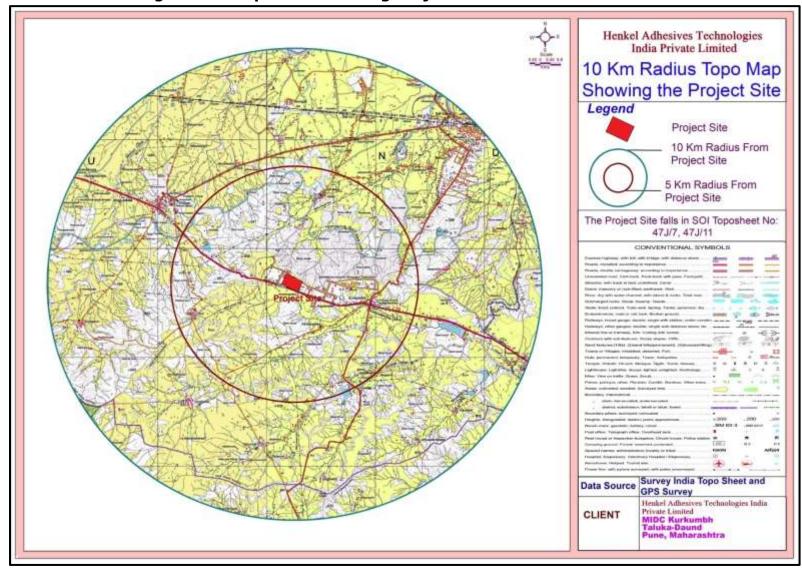


Figure 3.1: Top sheet Showing Project site and 10Km of area

3.4 Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from HFL of the river), CRZ.

Proposed site falls under the Industrial MIDC. The land is reserved for Industrial use. The proposed site is an developed land which does not include agricultural, forestry, water bodies (including CRZ) etc.

#### 3.5 Existing Infrastructure

- The land is in a notified industrial area.
- All infrastructures are available.
- Road Network connecting to Pune to Solapur.
- Air travel is readily available from Pune Airport.
- Water is available from MIDC.
- Electricity is available from MSEDCL.

#### 3.6 Soil classification

The basic type of soil found in the area varies from red, brown & black. The black type of soil is found in the eastern part. The fertility of the soil increases as it goes from red to black.

#### 3.7 Climatic data from secondary sources

The climate, in Daund area is characterized by hot summer and general dryness throughout the year except the south west monsoon season. The year may be divided into four seasons. The winter or cold season is from December to February, summer or hot season from March to May. The south west monsoon season is from June to September, while October and November constitute the post monsoon season.

**Climate Classification:** Project site features a semiarid climate.

**Temperature:** Annual maximum and minimum temperature in Kurkumbh ranges from max. 36°C and min. 16°C with the most comfortable time to visit in the winter October to February. May is the generally hottest month of the year with average temperature in

between 38 to 22 deg. Cent. In cold season the area is sometimes affected by the cold waves over north India and the minimum temperature may drop to between 29 to 10 deg. Cent. The air is generally dry except during the south west monsoon season, when the relative humidity is high.

**Rainfall:** Most of the rainfall occurs in the monsoon season from June to September. Average annual rainfall is 375 mm.

**Humidity:** Annually relative humidity ranged from 65% – 95% in winter and during summer season the humidity ranged from 35% – 70%.

#### 3.8 Social Infrastructure Availability

The basic amenities within the study area include primary schools, dispensaries, water supply, electric supply, public telephones, hotels, banks, post offices, petrol pumps, bus services, technical training institute and entertainment etc.

## 4.0 Planning In Brief

## 4.1 Planning Concept

Proposed plant activities will be started after getting statutory clearance form related authorities. The project will be completed within one year. Further, proposed project activities will take care of all the rules and regulation of statutory authority and provide the control measure and devices to achieve the standard norms.

Kurkumbh MIDC has provided all infrastructures like assured electrical power, continuous water supply with purification from water works like disinfection, the internal road network, external approach road, and networking with CHWSTDF (Common Hazardous Waste Storage Treatment and Disposal Facility) in vicinity established with support of MIDC and MPCB.

All nearby villages are provided with drinking water from wells or Government Water Supply Schemes. Hence we do not encroach upon their supply.

#### 4.2 Population Projection

Daund region has 382535 populations out of this 198269 male and 184266 female. And the density of population is 297 per square kilometer. It has a mixed population of Hindus, Muslims and Christians. The village has basically an agrarian economy and industrial workers and farming is the main occupation of the villagers. The local self-Government vests with a Grampanchayat having an elected body headed by a Sarpanch. The literacy rate at present is approx. 74.12 % which is above the national average. In men the literacy rate is 79% and in females it is 69 %.

## 4.3 Land Use Planning

Proposed land is already developed and located in a designated industrial area. The total plot area is 26400 sq. m.

**Area Calculation of Plot** 1 Total area of plot 26400.00 Sq.m. 2 Permissible FSI 1.0 Sq.m. 3 Total permissible BUA on Plot 26400.00 Sq.m. BUA on Plot (As per detailed summary) 23760.98 Sq.m. 4 5 Balance BUA on plot 2639.02 Sq.m. Permissible Ground coverage (50% of the plot area) 13200.00 Sq.m. 6 7 Proposed ground coverage on plot 7576.46 Sq.m. Required green area(33% of the plot area) 8712.00 Sq.m. 8 9 Provided green area on plot 8713.51 Sq.m. Required parking area on plot (10 % of plot area) 2640.00 Sq.m. 10 11 Provided parking area on plot 2650.09 Sq.m.

Table 4-1: Land Use Break Up

### 4.4 Assessment of Infrastructure Demand (Physical & Social)

Henkel proposes green field project for manufacturing of Adhesives, Sealants and surface treatment products at Plot No.: D-4/2, MIDC Kurkumbh, Dist. Pune, Maharashtra. There will be no demand of physical infrastructure and social infrastructure.

## 4.5 Amenities/Facilities

In proposed site many basic facilities like uninterrupted water supply, Power and Road Network & solids disposal facility if feasible are available. This site is inside the campus of the MIDC and means safe transportation, less need of utilities, less constructing buildings and roads, less fuel, less water with optimization of infrastructure and networking with CHWSTDF (Common Hazardous Waste Storage Treatment and Disposal facility).

## 5.0 Existing infrastructure

#### 5.1 Industrial area

There is no existing infrastructure as this is a green field project. For proposed green field project manufacturing unit will be constructed along with storage area, ETP area, parking area etc.

#### 5.2 Residential Area

There is no residential area located in the project site.

#### 5.3 Green Belt

The project is built on MIDC plot with proposed plot area of 26400 Sq.m. for proposed green field project green belt of 8713.00 sq.m. (I.e. 33% of proposed plot) will be developed. Total 1300 number of trees will be planted in proposed green belt which will more 5 M in width. Native and pollution resistant species will be planted in the proposed green belt.

#### 5.4 Social Infrastructure

The basic amenities within the study area include primary schools, dispensaries, water supply, electric supply, public telephones, hotels, banks, post offices, petrol pumps, bus services, technical training institute and entertainment etc.

#### 5.5 Connectivity

- Unit is located at Plot Nos.: D-4/2 MIDC Kurkumbh, Taluka Daund, Dist. Pune,
   Maharashtra.
- The nearest city from the site is Daund at 8.5 Km.

The nearest railway station is Daund at 9 Km.

The nearest airport is at Pune Airport at 66 Km.

Site is well connected to by road to Pune-Solapur highway (NH09) at distance of 500

km

5.6 **Drinking Water Management** 

The source of drinking water supply is from MIDC.

5.7 **Sewage System** 

Domestic wastewater will be treated in STP of capacity 90 CMD of Henkel Adhesive

Technologies premises located at plot No. D-4/1 which is adjacent to the plot D-4/2.

Treated wastewater will be recycled and reused for the gardening in non-monsoon

season and for utilities in monsoon season after disinfection.

5.8 **Industrial Water Management** 

Trade effluent 43 CMD will be collected in collection pit & it will be pumped to the

existing ETP of Henkel Adhesive Technologies premises located at plot No. D-4/1. The

pumped water from Henkel D-4/2 will be treated in conventional ETP Consisting of

Primary, secondary and tertiary Treatment. After treatment it will be sent to CETP

Kurkumbh. The Capacity of ETP is 150 CMD & it is sufficient to treat total effluent of

138 CMD which consist 43 CMD effluent from Henkel D- 4/2, 85 CMD from sister

concern industry Henkel D-4/1 & 10 CMD from Henkel Anand.

5.9 **Solid Waste Management** 

Hazardous solid waste generated from the process will be collected, stored, transported

and sent to CHWTSDF as per Hazardous waste (Management, Handling and

Transboundry Movement) Rules 2008.

5.10 Power Requirement & Supply / source

power required as Connected load: 6531 KW

power required as operation load: 4467 KVA

## 6.0 Rehabilitation and Resettlement (R & R) Plan

Rehabilitation & Resettlement (R&R) plan is not applicable to proposed project since the proposed plot will be in notified industrial estate.

# 6.1 Policy to be adopted (Central/State) in respect of the project affected persons including home ousted, land ousted and landless.

The proposed green field project will be executed at new plot in notified MIDC Kurkumbh. Hence, there is no any kind of activity of Rehabilitation and resettlement carried out.

#### 7.0 PROJECT SCHEDULE & COST ESTIMATES

### 7.1 Likely date of start of construction and likely date of completion

The proposed activity is likely to start after getting Environmental Clearance and NOC/CTE from the authorized committee within 3-4 years.

# 7.2 Estimated project cost along with analysis in terms of economic viability of the project

Table 7-1: Cost Break-Up

The total investment envisaged is Rs. 97.01 Cr. with the break-up as given below

Sr. No.	Particulars	Total Rs. Cr.
1	Land	14.37
2	Building / Premises	22.07
3	Plant & Machinery / Equipment's	32.65
4	Electrical & Instrumentation	16.86
5	Engineering	7.99
6	Environmental Management	3.07
	Total Cost	97.01

## 7.3 Economic Viability

The project has been conceived assuming that there will be a growth in demand for the proposed products, leading to a reasonable rate of return in the medium term. The project is considered 'feasible'.

## 8.0 ANALYSIS OF PROPOSAL (FINAL RECOMMENDATIONS)

- Proposed green field activity will provide benefits to the local people in terms of financial and social welfare.
- Local people will get indirect income through contract of supply, services and transport.
- Company will contribute in improving education and health awareness in nearby area.
- Major business rise is expected to raw material suppliers which will reflect an increase in employment and business.
- Impact on environment and infrastructure due to proposed green field project will be minimized after implementation of suggested mitigation measures.
- The proposed products are Adhesives and sealants. These products have good potential in the Export market as well as in the domestic market. With the experience and contacts of Export markets there is very good potential in earning precious Foreign exchange for the Country. While doing so it is needless to say that this proposed activity shall generate profit for the company and increase the foreign reserves of the state.

## **Annexure I- Plant Layout**

