

# **F I DYE CHEM**

**Plot No. 3 & 11, Sikandar Market , Chandola Dhal, Opp. Chandola  
Petrol Pump, Danilimda, Ahmedabad-380022, Gujarat  
M-9601936128, Email:fidyechem1749@gmail.com**

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Date: 31/01/2018

To  
The Member Secretary (Industry -2),  
Ministry of Environment, Forest and Climate Change,  
Indira Paryavaran Bhawan,  
Jor Bagh Road,  
New Delhi -110 003

**Subject** : Submission of Essential details sought by member secretary for our project, "Manufacturing of synthetic organic dyes 55 MT/Month" located at Plot no 3 &11, Sikandar Market, Chandola Dhal, opp. Chandola Petrol Pump, Danilimda, Ahmedabad-380 022, Gujarat by F I DYE CHEM

**Reference** : EDS generated for proposal no IA/GJ/IND2/59635/2016  
File No: J-11011/326/2016-IA-II

Respected Sir/Madam,  
With reference to the above mentioned subject, we are submitting herewith the essential details sought for proposal no IA/GJ/IND2/59635/2016

Kindly acknowledge the same and consider our proposal for appraisal.

Thanking you in anticipation.

Yours Faithfully,  
For **F I DYE CHEM**

  
Authorized Signatory

**REPLY TO EDS GENERATED DATED 30-01-2018**

**For**

**MANUFACTURING OF SYNTHETIC ORGANIC  
DYES 55 MT/MONTH**

**(SYNTHETIC ORGANIC CHEMICALS )**

**(A CATEGORY)**

**File No: J-11011/326/2016-IA-II**

**At**

**PLOT NO 3 &11, SIKANDAR MARKET,  
CHANDOLA DHAL, OPP. CHANDOLA PETROL  
PUMP,**

**DANILIMDA, AHMEDABAD-380 022,**

**GUJARAT**

**BY**

**F I DYE CHEM**

## Point No 1

Land use pattern of the proposed site, whether proposed industrial operations allowed at the given site.

### Reply:

We are submitting herewith the copy of the zoning certificate received allowing us for Industrial operation.

### Translated Copy of Zoning Certificate

H/2013  
13-1-2018

SYMBOL OF A.M.C. AHMEDABAD MUNICIPAL CORPORATION  
Town Development Department, Central Office  
Ahmedabad

Application No. : RZ2016/0216/6884 Sr. No. H/1113/2018  
Date of Application : 16-02-2017  
Receipt No. : 161

Applicant Shri F.I. Dyechem  
Plot No.3 & 11, Sikandar Market  
Chandola Talav, Danilimda  
Ahmedabad.

Mohammedrafiq G. Shaikh  
NOTARY  
GOVT. OF INDIA  
1 JAN 2018

**ZONING CERTIFICATE**

Under the Provisions of Section 17(1(a) of the Gujarat Town Planning & Urban Development Rules, 1976 on the basis of the map as prepared by AUDA according to second Revised Development Scheme-2021 sanctioned by the State Government and became effective from 20-12-2014.

Mouje : Dani Limda  
Revenue Survey No. : 322  
R.D.P. Sheet No. : 105+119

The land on which the road of 24.38 mtrs. Towards North and passing through East/West is widening upto 30.00 mtrs. and it affects

...2.

the same. The road of 24.00 mtrs. Is passing at Northern / Western corner and it also affects the same and road-roundness. The remaining portion comes under "Industrial Zone – General IG".



**Note :**

- (1) As this land draft is in the area of sanctioned Town Planning Scheme under 38/1, Dani Limda-East, it shall be binding subject to the amendment in other proposal-provisions under the Town Planning Scheme and as per the decision of the Town Planning Officer.
- (2) This is only the Zoning Certificate and not the construction permission.

True Copy

Date : 16-02-2017

Sd/- Illegible  
16-02-2017

Sd/- Illegible  
16-02-2017

I hereby True and Correct Translation  
Original/Zeros Documents  
Gujarati/Hindi in to English  
Produce before me

MOHAMMED RAFIQ G. SHAIKH  
NOTARY  
GOVT. OF INDIA

1 JAN 2018



## **Point No 2**


Whether proposed products covered under synthetic organic chemicals and no formulation products.


### **Reply:**

Note explaining that the proposed products covered under synthetic organic chemicals and no formulation products is presented herewith.

- a) Proposed products are Product Reactive Blue P3R, Product Reactive Blue MX7R, Product Reactive Black B, Product Reactive Blue 49, Product Reactive Green HE4BD
- b) These Proposed products are reactive dyes as per the definition of Reactive dyes described under section 3.3.1 of Technical EIA Guidance Manual for Synthetic Organic Chemicals, prepared for the Ministry of Environment and Forests Government of India. 2010.
- c) Dyes and dye intermediates manufacturing are covered under the synthetic organic chemical industry ( ref . 1.1 of of Technical EIA Guidance Manual for Synthetic Organic Chemicals, prepared for the Ministry of Environment and Forests Government of India. 2010 . )
- d) The manufacturing of the proposed products involves unit processes such as Dizotisation –coupling , condensation and reduction as well as unit operation such as filtration , washing , size reduction , drying . Thus the site activity is not only mixing operation .
- e) A formulation is a mixture of ingredients prepared in a certain way and used for a specific purpose. In the case of dyes the end user does the mixing of additives as per the requirement at shop floor to achieve the end result as the shed and it can be termed as formulation. However no such mixture is proposed in the activity at proposed site operations.
- f) In view of the above the proposed products are covered under synthetic organic chemicals and no formulation products.

Encl .extracts (in support of points b and c above) from Technical EIA Guidance Manual for Synthetic Organic Chemicals, prepared for the Ministry of Environment and Forests Government of India. 2010.)

Environment

  
Ministry of Environment  
& Forests

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**Introduction**

- Meeting time targets without compromising with the quality of assessments/ reviews
- Varying knowledge and skill levels of regulators, consultants and experts
- Newly added developmental activities for prior environmental clearance, etc.

**Operational issues**

- State level /UT level EIA Authorities (SEIAA/UTEIAA) are formulated for the first time and many are functioning
- Varying roles and responsibilities of involved organizations
- Varying supporting institutional strengths across the States/UTs
- Varying manpower availability, etc.

**1.1 Purpose**

The purpose of developing the sector-specific technical EIA guidance manuals (TGM) is to provide clear and concise information on EIA to all the stakeholders i.e., the project proponent, the consultant, the reviewer, and the public. The TGMs are organized to cover following:

**Chapter 1 (Introduction):** This chapter provides a brief introduction on the EIA, basic tenets of EIA Notification, technical & operational issues in the process of clearance, purpose of the TGMs, project implementation process and additional information.

**Chapter 2 (Conceptual facets of an EIA):** Provides an overall understanding to the conceptual aspects of control of pollution and EIA for the developmental projects. This basic understanding would set the readers at same level of understanding for proper interpretations and boundaries for identifying the environmental interactions of the developmental projects and their significance for taking measures of mitigation. This chapter covers the discussion on environment in EIA context i.e sustainable development, pollution control strategies, preventive environmental management tools, Objectives of EIA, types and basic principles of EIA, project cycle for synthetic organic chemicals industry, understanding on type of environmental impacts and the criteria for the significance analysis.

**Chapter 3 (The Synthetic Organic Chemical Industry):** The purpose of this chapter is to provide the reader precise information on all the relevant aspects of the industry, which is essential to realize the likely interaction of such developmental activities on the receiving environment. Besides, this Chapter gives a holistic understanding on the sources of pollution and the opportunities of the source control.

The specific coverage which provides precise information on the industry include (i) introduction - Common unit processes and operations, Chemical synthesis, (ii) Basic Organic Chemicals, (iii) Dyes and Dye Intermediates, (iv) Bulk Drugs and Intermediates, (v) Synthetic rubbers, (vi) the summary of applicable national regulation for this developmental activity.

**Chapter 4 (Operational aspects):** The purpose of this chapter is to facilitate the stakeholders to extend clear guidance on coverage of legislative requirements, sequence of procedures for obtaining the EIA clearance and each step-wise provisions and considerations.

TGM for Synthetic Organic Chemical Industry1-2August 2010



**Ingrain Dyes:** These are water insoluble azo dyes and are so called because the dye is formed on the fibre itself. This includes both azoic systems and oxidation bases.

**Metal complexes:** These dyes are synthesised as metal complex on textile fibre e.g., phthalonitrile and metal salts. The colour range depends on the metal salts used and these dyes give good fastness of colour on the fibre. As an example, copper phthalocyanine is a typical metal complex dye, which is most extensively used in dyeing of cotton fabrics.

**Mordant Dyes:** This class is in the group of special wool dyes, the dyeings from which are treated with aqueous bichromate in order to improve wet fastness. This treatment may be applied to the fabric before dyeing, during the dyeing process or afterwards.

**Optical brightening, whitening agent:** These dyes are mainly used to whiten textiles, plastics, paper, soap *etc.*, and to add brightness to delicate dyeing. Examples of dyes are derivatives of diaminostilbene, coumarin *etc.*

**Pigment dyes:** Pigments form insoluble compounds or cakes with salts of calcium, barium, chromium or phosphomolybdic acid. The dye molecules frequently contain -OH or -SO<sub>3</sub>H groups. These are mainly used in paint industries and in the mass colouration of plastics.

**Reactive dyes:** These are defined as coloured compounds possessing a suitable group capable of forming a covalent bond between a carbon atom of the dye ion or molecule and an oxygen, nitrogen or sulphur atom of a hydroxy, an amino or a mercaptan group respectively of the substrate. It is suitable for dyeing wool and cotton.

**Solvent Dyes:** These dyes are mainly of azos, triarylmethane bases, or anthraquinones used to colour oils, waxes, varnishes, shoe, dressings, and gasoline. Solvent dyes can be used for dyeing synthetics with reduced problems in the disposal of spent liquors. In other words, the dyeing liquor will be completely used up and will not be present in the effluent.

**Sulphur Dyes:** Sulphur dyes are of indeterminate structure and are derived from the sulphurization at elevated temperatures of certain aromatic compounds. They are water insoluble but are rendered soluble for dyeing purposes by sulphide reduction. These dyes are mainly used for cotton dyeing.

**Vat Dyes:** These dyes which are insoluble in water but soluble in their reduced form have been classed as vat dyes. These dyes are suitably used for cotton and other cellulosic fibres. As the operation of dyeing is carried out in a strongly alkaline medium they are not suited for wool dyeing. Special methods have to be used for wool dyeing.

### 3.3.2 Manufacturing process

Manufacturing process generally adopted involves conversion of simple organic products like benzene, xylene, naphthalene, anthracene *etc.* into a vast number of complex chemical intermediate and dye through several steps of operation like

- Chemical conversion
- Sulphonation
- Neutralization
- Fusion
- Chlorination

**Point No 3**

Water and fuel consumption

**Reply:**

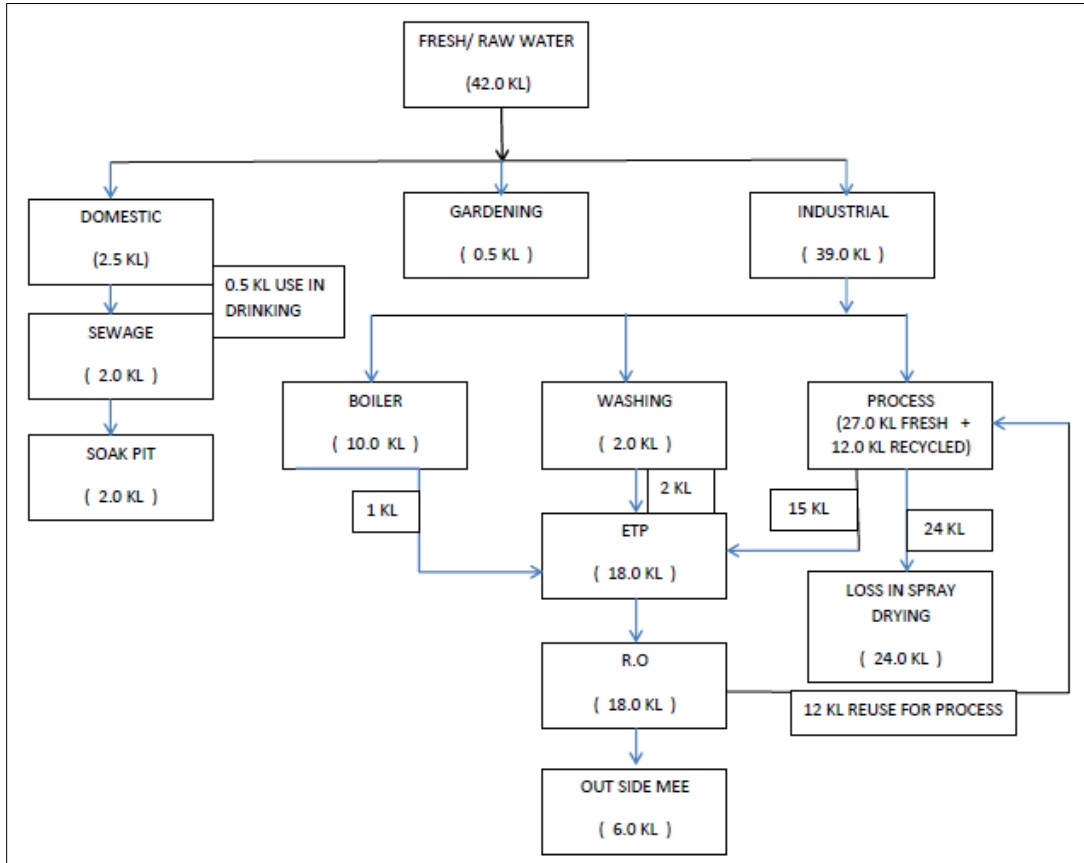
Water balance explaining the water requirement for the proposed Industry is given below; the water requirement of will be met through Municipal Water / Tankers. The total net water requirement for the proposed unit will be 42 m<sup>3</sup>/day, which includes domestic, gardening and industrial purpose. The detail of water balance is given in the table below;

**Water Table**

Purpose	Use		Loss	Effluent	Effluent Treatment and Management
	Fresh	Recycle			
Domestic	2.5	0.0	0.5	2.0	Primary treatment & R.O System. Further treated in CETP
Washing	2.0	0.0	0.0	2.0	
Process	27.0	12.0	0.0	15.0	
Laboratory					
Boiler	10.0	0.0	9.0	1.0	
Green Belt	0.5	0.0	0.5	0.0	
<b>Sub-Total</b>	<b>42.0</b>	<b>12.0</b>	<b>0.0</b>	<b>18.0</b> <b>Industrial</b> <b>+ 2.0 Domestic</b>	



## Water Balance



### **Fuel Requirement:**

### **Fuel Requirement:**

Agro Waste will be used as a fuel for the steam boiler and Diesel will be used as fuel for the backup. Diesel will be used as a fuel for the D.G. Set, which will be used as an alternate/stand-by power source. The details of fuel consumption are given hereunder in the table below;

### Details of Fuel Requirement

S. No .	Name of Fuel & Quantity	Fuel Requirement	Capacity	Type of Emission	Stack Height (m)	APCM	Pollution Control Within Limit
1	Agro Waste:90 MT/Month Or Coal:96 MT/Month	Boiler	1.0	TMP, NO <sub>x</sub> , SO <sub>x</sub>	12	Multi Cyclone	PM < 150 mg/ Nm <sup>3</sup> SO <sub>2</sub> < 100 ppm NO <sub>x</sub> < 50 ppm
2	Diesel 150 lit / day	D.G. Set	65 KVA	NO <sub>x</sub> , SO <sub>x</sub>	5		