

## Acetyls

Jubilant is the largest consumer of Acetic Acid in India and offers a basket of Acetyl products like Acetic Anhydride, Ethyl Acetate, MCAA (Monochloroacetic Acid), SMCA (Sodium Monochloro Acetate), Acetaldehyde, Acetic Acid and VAM (Vinyl Acetate Monomer). Jubilant is the largest producer of Acetaldehyde from in-house alcohol-based production process, which it uses captively.

Jubilant's key advantages lie in its 30 years of chemistry knowledge, easy availability of feedstock for its distilleries and Acetyls production sites at Gajraula (UP) & Nira (Maharashtra), which are located in the largest sugarcane producing states of India providing Alcohol at competitive prices, which insulates it from the vagaries of commodity cost cycles. Other advantages are ample availability of Acetic Acid in Asia region, manufacturing excellence which provides higher efficiencies in entire Acetyls value chain and Jubilant's strong customer relationships. Acetyls cater

to a diverse range of industries from Pharma, Crop Protection, Food & Beverages, Textiles, Packaging, Adhesives, Aromatics etc. Both the manufacturing facilities of the Company adopt highest standards of safety and are ISO9001 / OHSAS18001 certified. Jubilant focuses on customizing the products through superior quality and on-time delivery.

Six Sigma initiatives are adopted where the Company constantly benchmarks and improves the product line-up to enhance efficiency measures.

### Global Positions

3rd largest manufacturer of Acetaldehyde  
7th largest in Acetic Anhydride  
7th largest in Ethyl Acetate

## Product Portfolio

**Acetic Anhydride** – Jubilant is **7th largest global manufacturer** of Acetic Anhydride and is **4th largest in terms of merchant sales globally**. It is an important ingredient for industries like Cellulose Acetate, Dyes, Pharmaceuticals, Agrochemicals and also finds application as an intermediate in the making of detergents.

**Ethyl Acetate** – Ethyl Acetate is another important downstream product of Ethyl Alcohol and Acetic Acid. Jubilant is the **7th largest manufacturer** of Ethyl Acetate in the world and the largest domestic player. It is an important ingredient in diverse industries such as Paints and Coatings, Adhesives, Packaging, Printing, Pharmaceuticals and Synthesis.

**Monochloroacetic Acid (MCAA) / Sodium Monochloro Acetate (SMCA)** – Jubilant is the only integrated producer manufacturing Monochloroacetic Acid/ Sodium Monochloro Acetate by utilising Acetic Acid and Acetic Anhydride. Jubilant commands a major share of export market. Monochloroacetic Acid / Sodium Monochloro Acetate are used in industries as diverse as Surfactants, Herbicides, Vitamins, Pharmaceuticals, Organic Chemicals, EDTA, Oil Drilling, Detergents, Food, Textiles and Plastic Additives.

**Acetaldehyde** – Jubilant is the 3rd largest manufacturer of Acetaldehyde in the world. The most common derivatives of Acetaldehyde are the Synthetic Pyridines, Pentaerythritol,

Acetate Esters (Ethyl Acetate, Isobutyl Acetate), 1, 3-Butylene Glycol, Peracetic Acid & Glyoxal. Jubilant is the largest global producer of Acetaldehyde from Ethyl Alcohol route. The Company derives its competitive advantage through proprietary technology and proximity of its plants to **high quality-low cost** feedstock.

**Acetic Acid** – Jubilant is the **largest consumer** of Acetic Acid in India. Acetic Acid is one of the most widely used chemicals in the world and a key raw material for the production of a wide number of products. Jubilant also sells Acetic Acid for PTA applications and to meet the needs of manufacturers of Printing Ink, Pharma, Aromatics, Food etc.

**Vinyl Acetate Monomer (VAM)** – It is mainly used inhouse in Polyvinyl Acetate (PVA) and Emulsions, Adhesives, which has applications in water-based paints, adhesives, food, acrylic fibres, paper coatings and non-woven binders. Polyvinyl alcohol (PVOH), used in packaging film and glass laminates, is the second-largest use. The remaining volumes go into Ethylene Vinyl Acetate (EVA) Polymers, Ethylene Vinyl Alcohol (EVOH) Barrier resins and Polyvinyl Butyral (PVB).

## Speciality Gases

Carbon Dioxide (CO<sub>2</sub>) and mixtures of CO<sub>2</sub> + Ethylene Oxide (ETO) are the two products comprising speciality gases portfolio of the

company. CO<sub>2</sub> is available as a by-product in the manufacturing process of alcohol from Molasses.

## Product Offerings

**Liquid Carbon Dioxide (CO<sub>2</sub>)** – Used in Healthcare and Beverages and automobile industry.

Range offered in Carbon Dioxide:

- Food & Beverage Grade
- Engineering Grade for Fire Extinguishers, Welding (MIG)
- Pharma & Dry Ice Manufacturing
- Horticulture & Agriculture Industry

**Ethylene Oxide Mixture (ETO)** – ETO mixtures are used by health care facilities world-wide for sensitive instruments which cannot be adequately sterilized by either steam or liquid disinfectants.

ETO, even with repeated use, treats most medical material gently. Its property of permeating through barrier packaging enables medical

instrument to be sealed prior to sterilization, which in turn ensures maintenance of sterility for an enhanced period.

We offer various ETO, CO<sub>2</sub> mixtures for disposable medical sterilization:

- 30% Ethylene Oxide +70% Carbon Dioxide
- 90% Ethylene Oxide +10% Carbon Dioxide
- 10% Ethylene Oxide +90% Carbon Dioxide
- 20% Ethylene Oxide +80% Carbon Dioxide
- 13% Ethylene Oxide +87% Carbon Dioxide
- 70% Ethylene Oxide +30% Carbon Dioxide

The Company also has the capability to manufacture Ethylene Oxide Mixtures of other combinations as per the customer requirements.



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**Jubilant Life Sciences Limited**, an integrated pharmaceutical and life sciences company, is the largest Custom Research and Manufacturing Services (CRAMS) player and a leading Drug Discovery and Development Solution (DDDS) provider out of India. It has been ranked No. 6 amongst the Top 10 global contract manufacturing & services outsourcing players of the pharmaceutical industry (Source: UNCTAD).

The Company provides Life Science Products and Services across the pharmaceutical value chain, serving customers across 75 countries with ground presence in India, North America, Europe and China. The Company is well recognised as a 'Partner of Choice' by leading life sciences companies worldwide. For more information: [www.jubl.com](http://www.jubl.com) or write to us at [support@jubl.com](mailto:support@jubl.com)

**Corporate Office** : 1A, Sector 16A, Noida-201301, U.P., India, Tel: +91 120 4361000, Fax: +91 120 4234881/84/85/87/95/96