

## ICC ACHARYA P. C. RAY AWARD FOR DEVELOPMENT OF INDIGENOUS TECHNOLOGY

Conferred on

**GALAXY SURFACTANTS LTD.**

# CITATION

**GALAXY SURFACTANTS LTD.** was founded in the year 1980 and incorporated as a company in the year 1986. The company has manufacturing facilities at Taloja and Tarapur in Maharashtra, Jhagadia in Gujarat, Denville in New Jersey, USA and Attaka-Suez in Egypt.

Galaxy is a surfactants manufacturing company with products needed by home and personal care industries including variety of surfactants such as anionic, cationic, amphoteric and others.

**GALAXY SURFACTANTS LTD. is a Responsible Care Committed Company and is a Responsible Care Logo holder.**

Sustainability at Galaxy is one of the significant driving factors of innovations. One of such innovations was made in the preservative's portfolio by the company by developing Galguards (based on principles of green chemistry) for personal care products. The composition of this and its process has been patented in USA, EU, Russia, China and India.

**Galguard LipoG** – One of the patented non-toxic antimicrobial was commercialised recently and has already reached a production of more than 30,000 MT/Y. The Preservative compositions using the antimicrobial Galguard LipoG are based on combinatorial approach delivering the broad spectrum of antimicrobial activity and are biodegradable, eco-friendly, and non-toxic to human and other living systems. This technology developed by Galaxy Surfactants has the potential of changing the landscape of preservation of personal care products.

The invention involves process for manufacturing homogeneous blends of N-Undecylenoyl Glycine and N-Capryloyl Glycine for preservation of personal care products like shampoos, body-washes, face washes, creams and lotions. It further relates to an efficient

process for preparing homogeneous blend of lipidated glycines in flake form, to avoid dusting.

The manufacturing process involves Step I - Reaction of alkanoyl chlorides with glycine in the presence of a base; Step II - Acidifying the reaction mass of step I with sulphuric acid and subsequent phase separation at 60 °C - 65 °C to remove aqueous layer; Step III - Washing the organic layer of step II at 60 °C - 65 °C with water; Step IV - Removal of trapped water from the organic layer of lipidated glycines of step III by using wiped film evaporator; & Step V - Flaking of the molten mass of lipidated glycines.

The objective of this invention is to provide a non-dusting solid form of blend of lipidated glycines, namely, N-capryloyl glycine and N-undecylenoyl glycine to avoid the dust-explosion hazard and also to avoid toxic effect on human and eco-system due to the exposure to the dust as well as to provide a cost-effective manufacturing process that would be sustainable.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC ACHARYA P. C. RAY AWARD FOR DEVELOPMENT OF INDIGENOUS TECHNOLOGY** for the year 2020 on **GALAXY SURFACTANTS LIMITED.**



**AWARD RECEIVER**  
**DR. NIRMAL KOSHTI**  
DIRECTOR & HEAD  
INNOVATION  
GALAXY SURFACTANTS LTD



## ICC AWARD FOR EXCELLENCE IN PROCESS DESIGN & ENGINEERING

Conferred on

**JUBILANT PHARMOVA LIMITED**

# CITATION

**JUBILANT PHARMOVA LIMITED** [Formally JubilantLifeScienceLimited] was established in the year 1985. Jubilant Pharmova is engaged in manufacturing and supply of Radiopharmaceuticals with a network of 49 Radiopharmacies in the US, Allergy Therapy Products, Contract Manufacturing of Sterile Injectables and Non-sterile products, Active Pharmaceutical Ingredients and Solid Dosage Formulations through six USFDA approved manufacturing facilities in the US, Canada and India.

The Drug substance “**Remdesivir**” is developed by Jubilant Pharmova in a very short period of time during the COVID-19 pandemic situation. The product was in high demand and was the first anti-viral drug approved for the treatment of COVID-19 virus. It is the joint venture project with Gilead Science. During lab development, various outstanding modifications were done to achieve the plant feasibility, good yield and quality of final products. This required complex synthesis with as many as six chiral centres using three main intermediates. Jubilant Pharmova with help from its subsidiary not only managed the difficult task of

synthesising Remdesivir, but also equally difficult task of developing QA procedures for a variety of isomers that got produced.

Remdesivir is highly complex chiral molecule having six chiral centres and produced as single stereoisomer. Synthesis of Remdesivir involves 7 stages involving 3 Key starting materials, 4-Amino-7-iodopyrrolo[2,1-f][1,2,4] triazine (AIT), (3R,4R,5R)-3,4- bis(benzyloxy)-5-((benzyloxy)-methyl) dihydrofuran-2(3H)-one (BBD) and N-[(S)-(4- nitrophenoxy) phenoxyphosphinyl]-L-Alanine 2-ethyl butyl ester (PLN). The first two stages (RDV-1 and RDV-2) were completely in-house developed technology.

A large team working on this produced Remdesivir in just forty days solving along the way design and production related issues and put the drug in the market as Jubi-RTM.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN PROCESS DESIGN & ENGINEERING** for the year 2020 on **JUBILANT PHARMOVA LIMITED, Uttar Pradesh.**



## ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY

Conferred On

**LANXESS India Private Limited**

# CITATION

**L**ANXESS India Private Limited is a global specialty chemical company established in the year 2004. Safety is a core value at LANXESS and not just a function; not just a department's responsibility but a mandate and priority right from Board of Management to workers at plants. It is a member of Dow Jones Sustainability Index (DJSI) World and FTSE4Good. LANXESS India is also founder member and active participant of Nicer Globe for transportation safety. The company has globally joined hands with TFS (Together for sustainability) which aims at bringing in sustainability among suppliers and other service providers (like warehouses, logistics etc.). LANXESS India is also the lead in the recently formed Indian Bromine Platform under the aegis of ICC. The company is on its way to become Climate neutral by 2023 for both its manufacturing sites. **LANXESS India Private Limited is a Responsible Care Logo holding company.**

HAZOP for all processes and areas are done in a PROPHA software. It has defined structure for carrying out initial **Safety Review, Detailed Safety Review and Pre-Startup Safety Review** and a robust **Management of Change** process to conduct reviews for the changes (Technical and Personnel Changes). Job safety analysis is done with a 6\*6 risk matrix. The company ensures safety across the supply chain viz. suppliers, toll and custom manufacturers, warehouses, transporters along with CSR road safety initiatives. The newly developed **Safety Culture Development process** (SCD process) is a systematic approach to carry cultural initiatives – Performance Culture and Xact (an initiative by LANXESS to improve BBS (Behaviour Based Safety) into the plant culture and take safety to the next level. The unit has robust system, infrastructure and controls in place for managing all kind of risks involved in manufacturing processes.

Most of the safety tools such as Incident Management System, near-miss reporting, Compliance Management, Visitor induction kiosks, Management of Change' and E-learning modules for training etc. are digitally managed. The Jhagadia unit had zero reportable cases in the last three years and has 100 percent coverage of regular and contract employees on health & safety trainings and also trained more than 12000 drivers in the year 2020 alone. The unit conduct both process risk assessment as well as occupational risk assessments also involving experts and plant employees. No new systems are started without conducting appropriate risk assessments. Management of Change (MOC) is strictly followed for new systems. Workplace and personnel monitoring is done. Exposure to chemicals and ergonomic hazards are checked while conducting the Job Safety analysis.

The fully equipped OHC having full time FMO and qualified regularly conducts the medical examination periodically and organizes many trainings and well-being session for the employees.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY for the year 2020 on LANXESS INDIA PRIVATE LIMITED, Jhagadia, Gujarat.**



## ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY

Conferred On

**RASHTRIYA CHEMICALS & FERTILIZERS LTD**

# CITATION

**RASHTRIYA CHEMICALS & FERTILIZERS LTD., Thal Unit** is a Public Sector undertaking established in the year 1964. It is engaged in the production of fertilizers and chemicals. RCF Thal unit has adopted various strategies for health and safety such as quarterly evaluation of HSE performance Index of all plants for quantitative benchmarking, development of in-house e-learning Management System based on FORMA-LMS software, photograph based checklists for inspection of powered tools and equipment, Building Fire and Life Safety Audit of all Factory and Township buildings, Employee Engagement in safety related activities through Online Near Miss reporting system in 03 languages (Hindi, Marathi and English), e-KAIZEN & suggestion scheme, Quality Circle, Six Sigma, 5 S; Motivation to Employees through participation in Celebration of National Safety Week & National Road Safety Week celebration, Observance of National Fire service week, Award Schemes for registering Near Miss, Best Safety Worker award, Best Safety coordinator award, Award for best Contract workers/supervisors etc.

RCF Thal unit had no reportable accidents in the last three years and no show-cause or closure notice in the last three years. During last three years, the Thal unit has covered 100% contract employees for Health & Safety trainings. The unit has a 24-hours operational OHC at the site and a 23 bedded hospital with all updated medical facilities at 8 km away. Periodic medical examination of all contract employee, regular employee, CISF staff, canteen staff is conducted annually & medical report is generated through SAP. A well-managed emergency procedure for factory accidents (for less than as well as more than 5 casualties) is followed.

At RCF work place monitoring rounds and Safety surveillance are taken as per predefined schedule by

a multi-disciplinary team from process, maintenance & safety departments. These reports are submitted to plant management and their compliance is closely monitored in safety committee meetings. A comprehensive report of Safety surveillance done in the month is sent to top management for compliance monitoring. RCF-Thal is certified for "Protect & sustain protocol" under product stewardship and rated 'Excellent'. In this system, apart from HSE, major emphasis is given on safety & security of product at all stages including transportation, warehouses and end user. Protect & Sustain protocol for product stewardship covers both manufacturing as well as product related risks. It includes evaluation of risks and the actions to protect safety, health, security and environment.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY for the year 2020 on RASHTRIYA CHEMICALS & FERTILIZERS LIMITED, Thal, Maharashtra.**



**ICC AWARDS 2020**

**AWARD RECEIVER**  
**MR. S. C. MUDGERIKAR**  
CHAIRMAN & MANAGING DIRECTOR  
RASHTRIYA CHEMICALS & FERTILIZERS LTD

**ICC AWARDS 2020**  
CERTIFICATE OF MERIT  
Presented to:  
RASHTRIYA CHEMICALS & FERTILIZERS LTD  
For Excellence in Management of Health & Safety

# ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY

Conferred on

**RELIANCE INDUSTRIES LIMITED**

## CITATION

**R**ELIANCE INDUSTRIES LIMITED, Jamnagar was established in the year 1997 and is a leading petroleum refining, petroleum storage, transportation and petrochemical complex and employs 7524 employees. It has a well-defined HSE policy in which “safety of a person overrides all production targets”. The complex has adopted many innovative safety practices. Operating Management System (OMS) frameworks operates through a set of 201 Group Essentials, organized under 48 sub-elements and 8 elements. Performance Improvement Cycle (PIC) engine drives the system to help identify, prioritize, plan, implement & embed improvement opportunities.

At Reliance, structured implementation of Process Safety Management is done through engagement with M/s DuPont Safety resources by implementing of 14 PSM elements through focused teams for each element. Technology-wise Risk Register preparation & annual review process is followed to identify and evaluate efficacy of barriers identified in Risk Registers, Compliance to Global best practices, legal & other requirements (API, OISD, NFPA etc.) at the design stage. A rigorous and structures Competency Assurance System (CAS) is followed to ensure safe operations all the time. The ReSOP (Reliance Safety Observation Program) is well defined six-step program focusing on Behavior Safety for all level of employees, with a sole objective of building trust & to demonstrate care to individual and ensuring that his behavior is changed permanently.

HITRA (Hazard Identification & Task Based Risk Assessment) is prepared at planning stage of all tasks. It involves identifying the hazards associated with all the sub tasks, the consequences it can cause and

then identifying and implementing control measures to reduce the residual risk so as to ensure safe work execution. Hazards considered are - Task Hazards, Location Hazards & Process Hazards. Job Cycle Checks (JCC) are carried out by trained employees for SOPs and SMPs. For Contractor Safety Management (CSM), a well-defined 6 step process is followed right from contractor selection till evaluation of contractor performance.

SOS (Safety Observations System), LFI (Learning from Incidents), Culture Transformation, ERCP (Emergency Response and Control Planning), IT base portal 'Social Distancing checklist' during covid times are some of the other innovative initiatives adopted at the Jamnagar Unit.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY for the year 2020 on RELIANCE INDUSTRIES LIMITED, Jamnagar, Gujarat.**



## ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY

Conferred On

CLARIANT CHEMICALS (INDIA) LIMITED

# CITATION

**C** LARIANT CHEMICALS (INDIA) LIMITED was established in the year 1972. Presently, 110 full time and 180 contract employees are working at its Cuddalore site. The management strongly believes that attitude and behavioural change of the employee will prevent all incidents. The company has taken a lot of initiatives and improving overall health and safety culture. It has a strong focus on zero LTAR to create an injury-free environment. **Clariant Chemicals (India) Limited, Cuddalore is a Responsible Care Logo holding company.**

The Cuddalore site did not have any reportable incidents in the last three years. The coverage of regular and contract employees for Health & Safety related trainings is above 90% and more than 1500 drivers were provided trained in different training programmes. For safety during transportation, it has adopted the 'Nicer Globe' initiative of ICC. For safe movement of trucks inside the plant, Valet parking is introduced. Operational Excellence Management System is implemented with support from SMP.

Management of change (MOC) Process is implemented through Software and a PR&MOC (Plant Reliability & Management of change) department is exclusively working for the changes in the product & Process. Whenever any change is initiated, a change note is circulated to Stakeholders for information; meeting to be conducted to freeze the scope; MOC form be generated and circulated for input; Hazard identification / HAZOP study to be initiated; risk assessment to be performed; Design review; Acceptance by the stakeholders; Process be implemented & finally P&ID, SOP be uploaded accordingly.

At Cuddalore site a well-equipped Occupational Health Centre with all infrastructure is available. All medical examinations for both contract and regular employee are conducted with periodicity and records are maintained. Various trainings and awareness sessions are being conducted for the wellbeing of the employees. There is a well-defined First Aid and Causality Handling policy. Some of the best healthcare and safety practices were followed during COVID-19 pandemic.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY for the year 2020 on CLARIANT CHEMICALS (INDIA) LIMITED, Cuddalore, Tamilnadu.**



# ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY

Conferred On

**INDIAN OILTANKING LIMITED**

## CITATION

**INDIAN OILTANKING** (formerly known as IOT Infrastructure & Energy Services Limited) is a professional, technical and logistics solution provider with domain expertise in Terminalling, Build Services and Renewable Energy. Since its inception in 1997, it has been providing customers with unparalleled logistics services and technical solutions in the Oil and Gas industry with utmost health & safety. Its Common User Terminal at Raipur (Chhattisgarh) established in 2015, is India's first inland terminal on a common-user basis, challenging the notion that terminals are captive assets of a particular Oil Marketing Companies (OMC). The terminal is a recipient of many awards under various categories at the national & international levels of business including prestigious Golden Lighthouse Award - 2018.

To ensure a safe and comfortable work atmosphere, IOT follows the systems of scheduled periodical in-house and external training, induction training, HAZOP study, QRA, Safety Integrity Level (SIL), HIRA, JSA, Hazardous Area classification, Pre-Startup Safety Review (PSSR), weekly / monthly inspections, lux level study, HIRA, cross-functional safety audit, external safety audit, regular Management Safety Walks, Management of Change (MOC) environment monitoring etc. At IOT Raipur, workplace monitoring is also done at various locations with results being recorded, documented and maintained by engaging MoEFCC approved laboratory. The terminal is provided with Oil Water Separator (OWS) with an online measurement & alarm for treated water oil content. The terminal has achieved 100% coverage of own & contract employees on health and safety-related training.

A well-equipped OHC operates round the clock with paramedic staff. All the employees are trained in first aid & have undergone live fire-fighting training at a reputed institute. All the employees including contract employees undergo periodic medical checkups and health records are maintained well. Special checkups and examinations are also conducted based on the exposure to chemicals and for persons working in hazardous areas. A hygiene survey and quantitative assessment of gases and fumes at various locations are also conducted. A biological monitoring program is conducted periodically for employees working at petroleum handling areas under which urine phenol is estimated. Employees are motivated through participation in various program, events, consultations and awards such as Best Employee, Best Contract Worker Award, Best Contractor, Best Stakeholder, Feather on the cap award, Best High Potential Near Miss Reporting, Best safety improvement suggestion award, Best Root Cause Analysis Award etc.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN MANAGEMENT OF HEALTH & SAFETY for the year 2020 on INDIAN OILTANKING LIMITED, Chhattisgarh.**



## ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF ENVIRONMENT

Conferred On

**AARTI INDUSTRIES LIMITED**

# CITATION

**A**ARTI INDUSTRIES LIMITED, Jhagadia (Unit-2) established in the year 2012, is a synthetic organic chemical manufacturing plant with 725 employees. The unit is a **Responsible Care logo holder company** and has implemented Environment Management system in accordance with ISO 14001:2015, ISO 9001:2015 and ISO 45001:2018 and. Aarti Industries Ltd Unit 2 has been rated Gold with an overall score of 68 out of 100 in Ecovadis assessment, with an individual environment score of 80 out of 100. The Jhagadia unit has also received 'Rotary Environment Excellence award 2020' in the Platinum category in the large-scale chemical sector for outstanding achievement in environment management.

The unit has Installed ZLD system for reducing the freshwater consumption and increase in use of recycled water. RO permeate is fully reused in cooling towers to reduce the water footprint. The amount of water recycled for the last 3 years clearly indicates a growing trend, with a 41.33% increase. Wastewater recycling has been accomplished by the establishment of reverse osmosis, multiple effect evaporator, agitated thin film dryer and scaleban system. The unit has reduced the fresh water demand significantly by 21.37% and do not harvest water directly from any source.

Predominant part of the process residue is being sent for co-processing in the cement manufacturing sector as a source of heat recovery. Huge quantities of spent HCl generated within premises as well as from other manufacturing units, which is a by-product, is used as a resource-raw material for manufacturing of export grade CaCl<sub>2</sub>.

Dry scrubbing for SO<sub>2</sub> emission in solid fuel utilities Unit has done R&D on addition of lime along with coal to reduce SO<sub>2</sub> emissions significantly in the cogeneration power plant in the adjacent unit. The outcome of the study has been presented to GPCB and the same has been notified based on our input. The monitoring of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> is carried out for 24 hours (4-hourly sampling for gaseous pollutants and 8-hourly sampling for particulate matter) with a frequency of twice a week at 3 specific locations, to have 104 observations in a year. Recently, it has also started monitoring parameters such as Ozone, 17 Ammonia (NH<sub>3</sub>), Carbon Monoxide (CO), Lead (Pb), Benzene, Benzo(a) Pyrene (BAP), Nickel, Arsenic, CL<sub>2</sub>, VOC & HCl. Unit has provided Bag Filter, Cyclone Separators, alkali Scrubber and wet scrubber as APCM to control emissions of CO, HCl, Particulate Matter, Cl<sub>2</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The Jhagadia unit has developed more than 33% greenbelt within and outside the premises.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF ENVIRONMENT for the year 2020 on AARTI INDUSTRIES LIMITED, Jhagadia (Unit-2), Gujarat.**





## ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF ENVIRONMENT

Conferred On

**CHEMFAB ALKALIS LIMITED**

# CITATION

**CHEMFAB ALKALIS LIMITED** is manufacturer of Caustic soda lye, Caustic soda Flakes, Chlorine, Hydrochloric acid, Sodium hypochlorite, Compressed Hydrogen gas and associated site activities such as Chlorine and Hydrogen Cylinder Testing, Chemical analysis service for external samples and consultancy service for water and wastewater treatment plants. It was the first membrane Chloralkali plant in India and was successful in operating this new technology under Indian conditions which led the Government of India to take a policy decision that all the future chloralkali plant will be only with membrane technology. It was the first chloralkali industry in India to be certified for ISO 14001 & OHSAS 18001 in the year 1998 & 2002 respectively.

The plant's specific water consumption for caustic was 3.13 KL/MT (lowest among the Chloralkali Sector). The treated effluent discharge was 0.0673 KL/MT for caustic soda (well below the target level as per Multilateral Investment Guarantee Agency-World Bank Group-Environment Guidelines for Chloralkali - Membrane plants). The company's eco-efficiency is 94 % as against the overall Indian Industry's efficiency of 52 %. It has achieved a total GHG reduction of 5400 MTCO<sub>2</sub>e/annum. The plant has implemented innovative technologies like manufacture of soda ash from flue gases (Patent Granted), Implementation of Ultrafiltration system for brine filtration thus eliminating the use of alpha cellulose which is made from wood. Its R&D department has also successfully developed a process for the conversion of non-hazardous brine sludge to bricks. This process has been patented.

Continuous online monitoring of the parameters

is analysed by the state-of-the-art Differential Optical Absorption Spectroscopy principle. It has established the state-of-the-art Fully Enclosed Negative Pressure system for the chlorine liquefaction section, chlorine filling section and the storages for the prevention of gas release to the atmosphere. This composite system is first of its kind in the world. (Patent application filed). A vast green belt comprising of trees, herbs and shrubs cover more than 70 % of the total plant area. The NDVI increased by 28 % between 1991- 2015 & 19 % between 2015- 2020. In 2019-20, about 114313cu.m of rainwater was harvested. The total carbon sink due to the plantation within campus was estimated at 7267 MTCO<sub>2</sub>e in the year 2020. Faunal diversity study was also studied. Carbon footprint for Puducherry plant is calculated every year from 2011-12 for Scope (1) & Scope (2). Scope (3) is also calculated for Business travel, employees transport, and selected office stationeries.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN MANAGEMENT OF ENVIRONMENT for the year 2020 on CHEMFAB ALKALIS LIMITED, Puducherry.**



## ICC AWARD FOR EXCELLENCE IN ENERGY CONSERVATION AND MANAGEMENT

Conferred on

**THIRUMALAI CHEMICALS LIMITED**

# CITATION

**T**HIRUMALAI CHEMICALS LIMITED (TCL) located at Ranipet, Tamil Nadu and incorporated in 1973, is a large manufacturer of Phthalic Anhydride.

TCL is the only manufacturer of malic acid in India, with technology developed in-house, meeting all the necessary requirements. While being a market leader in these products, they export in 50 different countries located in six continents and have the lead registration of malic acid under REACH regulation in the European Union. TCL's achievement in reducing furnace oil and HSD consumptions and exporting power to the State grid have been significant. The company is ISO certified for all relevant categories including ISO 50000 applicable to Energy Conservation and Management.

Specific Energy Consumption (SEC) as TOE/ MT Product were reduced in 2019, 2020 and concerned part of 2021 as follows:

YEAR	REDUCED FROM	REDUCED TO
2019	0.1232	0.0787
2020	0.0859	0.0798
2021	0.0914	0.0371

Energy efficiency was mainly achieved by:

1. Higher generation of steam increased by 18 tons/hr i.e.; 20-25% higher from a new reactor as compared to the old reactor of similar capacity.
2. An increase in ENPI (Energy Performance Index) from 2.6 units per litre in old DG sets to 3.4 units per litre, resulting in net annual saving of 268 KL of fuel.
3. Introduction of high efficiency motors saving 62000 units per year.
4. Installation of new energy efficient Turbo-blowers

having steam extraction facility reducing by about 400 000 units per year of power consumption. The specific power consumption reduced from 0.30 kW/CFM to 0.24 kW/CFM

TCL owns four wind mills having total capacity of 3.2 MWp. This enables them to export to Tamil Nadu power Grid (TANGEDCO) about 10-15 % higher power than imported from the grid.

Having systematically done Greenhouse inventorization in Scope-1 and Scope-2, they are strategizing inventorization of SCOPE-3. The company has attained carbon neutrality: the quantity of wind power generated being more than the energy import from TNEB Grid.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN ENERGY CONSERVATION AND MANAGEMENT for the year 2020 on THIRUMALAI CHEMICALS LIMITED, Ranipet, Tamilnadu.**



# ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN ENERGY CONSERVATION AND MANAGEMENT

Conferred on

**ALKYL AMINES CHEMICALS LIMITED**

## CITATION

**A** **ALKYL AMINES CHEMICALS LIMITED (AACL)** is a public Limited Listed company promoted in 1979.

The company is in the business of manufacturing and marketing various Aliphatic amines at Patalganga with the starting capacity of 2000tpa upgraded now to 73000tpa and is global exporter to pharma, rubber and specialty chemicals industries; and now they have installed the most recent capacity of 35000 tpa at Dahej. In all they are producing alkyl amines and various specialty chemicals for the last 40 years manufacturing derivatives at 3 sites namely Kurkumbh, Patalganga and Dahej having a total of 15 production plants, are ISO certified for all relevant categories including ISO 50001. All plants are appropriately and adequately automated. AACL's efforts encompassed use of renewable energy,

augmenting steam efficiency and evolving energy management scenarios. The company is a global leader in ethyl amines; a leading player for diethyl hydroxyl amine; leading producer of acetonitrile; globally leading producer of various specialty amines. AACL are equipped with a modern R&D center at Gurdasapur, Pune.

YEAR	ELECTRICAL	FUEL	STEAM	SPEC STEAM
	GJ/MT	GJ/MT	TO COAL CONS MT/MT	MT/MT
2018	0.29	12.4	5.74	6.9
2019	0.27	11.4	5.79	6.35
2020	0.28	12.2	6.14	5.57

Numerous strategies including COGEN were banked upon. Increased energy efficiency with every modification and expansion enabled Specific steam consumption improvement in recent years from about 7MT/MT to 5.67MT/MT. Cost benefit ratio is normally around 1-1.5 based on schemes implemented in boilers and electrical equipment. AACL owns two solar plants of 2MWp and 1.5MWp respectively.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC CERTIFICATE OF MERIT FOR ENERGY CONSERVATION AND MANAGEMENT** for the year 2020 on **ALKYL AMINES CHEMICALS LIMITED, Kurkumbh, Maharashtra.**



## ICC AWARD FOR EXCELLENCE IN ENERGY CONSERVATION AND MANAGEMENT

Conferred on

**TAGROS CHEMICALS INDIA PRIVATE LIMITED**

# CITATION

**T**AGROS CHEMICALS INDIA PRIVATE LIMITED (TCIL) was established in 1994 to manufacture and market synthetic pyrethroids, insecticides, fungicides intermediates, Veterinary technical and related formulation products. TCIL is certified with all relevant ISO standards including energy management systems 50001.

The Specific Energy consumptions are as follows:

YEAR	ENERGY GJ/MT	ENERGY MTOE/MT
2017-18	83.94	-
2018-19	83.83	1.69
2019-20	81.69	1.67
2020-21	75.21	1.54

In general, various forms of energy were addressed including water conservation. Solar heaters were installed, 20% energy was drawn from use of husk, numerous schemes scattered across the plants, 130

tons of steam Condensate utilized, Steam is generated from DG Set exhaust, Payback period ranged from 1 to 3 years. TCIL have implemented comprehensive energy (Fuel/Electricity) conservation plan; the main schemes implemented included multi-effect evaporator system, solar street lighting replacement of all 60watt (110 V) conventional lighting with 9 watt LED, Switching over to 5-star air conditioners, VFD installations in chiller unit, automatic blowdown in boiler unit, installing effective soot blowers, installation of energy efficient transformers and likewise.

Progressive switchover to non-conventional forms of energy revealed:

YEAR	BOARD, %	DG %	WIND %	FOSSIL %	TOTAL %
2018	7	2	34	57	100
2019	12	2	66	20	100
2020	4	1	82	13	100

CO<sub>2</sub> Reduction achieved during 2018, 2019 and 2020 was 1500, 2150 and 2760 MT

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN ENERGY CONSERVATION AND MANAGEMENT** for the year 2020 on **TAGROS CHEMICALS INDIA PRIVATE LIMITED, Cuddalore, Tamilnadu.**



# ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN ENERGY CONSERVATION AND MANAGEMENT

Conferred on

**KOTHARI PETROCHEMICALS LIMITED**

## CITATION

**KOTHARI PETROCHEMICALS LIMITED (KPL)** was established in 1989 at Manali, Chennai to manufacture a versatile petrochemical, Polyisobutylene (36000TPA). KPL is certified with all relevant ISO standards including soon to be obtained Energy Management Systems 50001. Ninety per cent of energy is produced using biomass and solar source from two solar farms.

The SEC s are tabulated below so also source wide thermal energy in percentages>

SEC: Thermal, Power and Steam

YEAR	SEC THERMAL TOE/MT	POWER+ THERMAL TOE	SEC, STEAM MT/MT	SEC, POWER, KWH/MT
2019	0.18	3,560	1.95	488
2020	0.15	3,610	1.57	421
2021	0.16	3,964	1.53	387

Source wide split of Thermal Energy, %

YEAR	EB+DG	BIOMASS	COAL	SOLAR	TOTAL
2019	7.5%	90.1	Nil	2.5	100%
2020	2.0	95.4	0.3	2.3	100%
2021	6.7	90.2	1.5	1.6	100%

Numerous schemes were implemented in different plant areas: Hot/Cold condensate utilization, Flare off gas recovery, water saving @7300KL/y, Daily monitoring of steam, CPP performance, boiler and turbine efficiency and specific thermal energy efficiency. Energy audit was regularly conducted internally as well as by external agencies.

GHG: CO2 MT/MT product

YEAR	CO2 EMISSION MT/MT
2019	1.024
2020	0.887
2021	0.865

In recognition of the above, **Indian Chemical Council** is pleased to confer the **CERTIFICATE OF MERIT FOR EXCELLENCE IN ENERGY CONSERVATION AND MANAGEMENT** for the year 2020 on **KOTHARI PETROCHEMICALS LIMITED, Chennai**.

ICC AWARDS 2020



**AWARD RECEIVER**  
**MR. M RAJAVEL**  
WHOLE TIME DIRECTOR  
KOTHARI PETROCHEMICALS  
LTD



## ICC AWARD FOR EXCELLENCE IN HUMAN RESOURCE MANAGEMENT IN CHEMICAL INDUSTRY

Conferred on

**GUJARAT STATE FERTILIZERS & CHEMICALS LTD.**

# CITATION

### **G**UJARAT STATE FERTILIZERS & CHEMICALS LTD (GSFC) was established in the year 1962.

The company has manufacturing facilities at Baroda, Nandesari, Kosamba and Jamnagar. Apart from a wide range of fertilizers, GSFC's chemical products have an integral but invisible presence in consumer products including paints, tyres, medicines and cosmetics etc.

**GSFC is a Responsible Care Committed Company** and is an **RC Logo holder**.

The Company has an excellent HR Policy framework, Employee Engagement/Welfare Scheme, Learning and development structure for Employees, Compensation packages and Benefits to their employees, Performance Management Process. GSFC also has an excellent Rewards and Recognition program, POSH/Compliance Policy, CSR Policy, etc.

The company follows Post-Retirement Medical Benefit Policy (PRMBS) as well as Arthik Sahayak Sangh wherein in case of demise of an employee during the service in the company, the family of the deceased receives amount of Rs.10 Lakhs. GSFC also provides intangible benefits to the employees which includes provision of half an hour break for exercise during work hours, provision of Sports facilities and various recreational facilities for the employees. For female employees, apart from the Maternity leave, Creche Facility is available for female employees having children from 6 months to 3 years of age.

GSFC has a comprehensive policy which covers three major areas which include Equal Opportunity, Gender Equity and Prevention of Harassment at Work Place. GSFC's Human Resource policy trains, builds

and retains talent through an approach that it calls as 'Genome of Leadership'. Its HR initiatives have been successful because the company has imbibed in its employees a sense of belongingness, which is profound and omnipresent. A cohesive spirit is palpable all round. GSFC is an equal opportunity employer committed to creating an inclusive environment. The company has also started interaction session named "Samvad-Setu - Introspection through Interaction" to know the employees' suggestions/ concerns/ problems at Workplace.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN HUMAN RESOURCE MANAGEMENT IN CHEMICAL INDUSTRY for the year 2020 on GUJARAT STATE FERTILIZERS & CHEMICALS LTD., Vadodara, Gujarat.**



**AWARD RECEIVER**

**MR. SANDEEP PUROHIT**

SVP (HRS)- GSFC & DIRECTOR  
- GATL  
GUJARAT STATE FERTILIZERS  
& CHEMICALS LTD

# ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN HUMAN RESOURCE MANAGEMENT IN CHEMICAL INDUSTRY

Conferred on

**HINDUSTAN PLATINUM PRIVATE LIMITED**

## CITATION

**H**INDUSTAN PLATINUM PRIVATE LIMITED was established in the year 1961. The company has its facility at Pawane, Navi Mumbai. Hindustan Platinum provides Refining Services, Catalyst & Chemicals, Electrical Contact, Nitro Technologies, Engineering products, Precious Metal Management.

**Hindustan Platinum Private Limited** is a **Responsible Care Committed Company**.

The Company has an excellent HR Policy framework, Employee Engagement/Welfare Scheme, Learning and development structure for Employees, Compensation packages and Benefits to their employees, Performance Management System. Hindustan Platinum Private Limited also has an excellent Rewards and Recognition program, Compliance Policy, etc.

Other than providing Salaries including PF, Pension, Gratuity, etc., other facilities provided to the employees include Mobile handset SIM and Usage, Performance Bonus, Increments, Late Sitting Conveyance, Landline Phone, Data Card, Laptop and Desktop with different entitlements for different levels.

Besides providing all benefits to the employees as per the Factories Act, 1948, Hindustan Platinum also provides various additional perks which includes

Paternity Leave, Leave Bank, Advance Leave, Bereavement Leave, Festive Advances, Mediclaim, Group Personal Accident Insurance, Subsidized Canteen, Subsidized transport facility, Marriage gift, Work from home, flexible hour, Worker's participation in decision making, Value based ambassador award, Promotion policy, Employee Suggestion scheme, Higher Education Policy, Co-operative Credit Society, Benevolent fund, Late Sitting Conveyance, Subsidized Bus facilities, Subsidized Canteen facilities, Opportunities for employment to Kin of employee.

The Promotion and Career planning opportunities provided at Hindustan Platinum includes Promotion Policy, Career Development, Learning and Development, Specialised development initiatives, Job Rotation and GET (Graduate Engineer Trainee) / MT (Management Trainee) training programs. The company also conducts Exit Interviews of their employees and conducts Behavioural Safety Trainings every month.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC CERTIFICATE OF MERIT FOR EXCELLENCE IN HUMAN RESOURCE MANAGEMENT IN CHEMICAL INDUSTRY for the year 2020 on HINDUSTAN PLATINUM PRIVATE LIMITED, Pawane, Navi Mumbai.**



## ICC AWARD FOR EXCELLENCE IN HUMAN RESOURCE MANAGEMENT IN CHEMICAL INDUSTRY

Conferred on

**EXCEL INDUSTRIES LIMITED**

# CITATION

**EXCEL INDUSTRIES LIMITED** was established in the year 1941. The company has its facilities at Roha & Lote in Maharashtra and at Visakhapatnam in Andhra Pradesh. Excel Industries Ltd. manufactures Intermediates for Agrochemicals, Specialty and Fine chemicals, Pharma Intermediates etc.

**Excel Industries Ltd** is a **Responsible Care committed company** and **Responsible Care Logo Holder**.

The Company has an excellent HR Policy framework, Learning and development structure for Employees, Compensation packages and Benefits to their employees, Performance Management System, Rewards and Recognition program, etc. The company also has special welfare schemes for the Covid 19 positive Employees.

Excel Industries has policies that are categorised into two broad subsets. First subset is process specific which helps employees understand the process of claiming leaves, LTA, Official Travel etc, which essentially helps them in understanding rules and procedures of various benefits and systems. Second subset is about explaining them about Values and Behaviours endorsed at Excel.

Excel has developed their own system of Performance management which is a mix of Management by Objective (MBO) and Balance Score Card. Most Employees have joined Excel as their first or second employer and they have retired from Excel. Excel industries Ltd. has an attrition rate of 2.56% which is a great indicator of employee satisfaction

The people at Excel Industries cherish family bonding and yearly organize get-together either on Foundation Day or Diwali where families can visit the office premises and the company organize recreation events for them. At the time of the “Long Service Award” function, family members along with the recipient of the award are felicitated in the company.

In Excel, it is believed that people are the driving factor of growth of the organization. The company therefore endorses and follows non-discrimination and inclusive experience in all phases of employment.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR EXCELLENCE IN HUMAN RESOURCE MANAGEMENT IN CHEMICAL INDUSTRY for the year 2020 on EXCEL INDUSTRIES LIMITED, Mumbai.**





# ICC ADITYA BIRLA AWARD FOR BEST RESPONSIBLE CARE COMMITTED COMPANY

Conferred on

**LANXESS INDIA PRIVATE LTD.**

## CITATION

**LANXESS India Private Ltd.** established in the year 2004, having 2 manufacturing sites and regional headquarters. Lanxess is leader in Specialty Chemicals Polymers and leading supplier of Advanced Intermediates and Performance Chemicals products. Lanxess India is a Responsible Care (RC) Logo holder since Feb 2015 and until now has gone through 3 RC assessment.

Responsible Care is integral part of company business operations. Company believes that RC has created a value for business, customers and the communities around manufacturing facilities. Both manufacturing sites Of LANXESS are on track to become Climate Neutral by 2023. The company had No Fatality and Lost Time Injuries Rate (LTIR) reported in last three years.

Process Safety is a core value at Lanxess and not just a function; not just a department's responsibilities but the mandate and priority, right from Board of Management to workers at plants. Senior management conduct audits periodically reinforcing the importance of Responsible Care through all levels. Safety concept is percolated at the ground through the robust Process Safety Management system.

The safety of employees' is the prime responsibility of the company and to achieve this strict implementation of PPE Rule, regular safety and health trainings, identify the risks and take action to prevent accidents, Job Safety Analysis, behavior based safety programs, robust Work Permit system etc are in place.

The Company has implemented waste reduction at source mechanism to achieve this, 3 R's (Reduce, Reuse, and Recycle) concept is in practice. Lanxess is on the path to become climate neutral many internal targets have been taken to reduce emissions by using of renewable energy sources, upgrade of technology, increasing green forest cover etc. Lanxess is a member of the leading sustainable indices Dow Jones Sustainability Index (DJSI). SO<sub>x</sub>, NO<sub>x</sub> CO<sub>2</sub> and COD generation are on reducing trend while production is on increasing trend.

An emergency management plan is active to mitigate emergencies. Emergency drills of risk scenarios carry periodically and analyzed gaps are filled and reviewed through an audit mechanism. Lanxess has a well-defined mechanism to reach out to all its stakeholders such as police, government authorities and the community through various CSR initiatives.

To adhere to the safe transportation policy, the company's products are classified based on their risk matrix and regulation. Based on the classification, appropriate packaging, modes of transport and routes have been selected. "Potential hazards" in the supply chain are systematically identified and minimized through appropriate precautions. Lanxess is one of the founder and active user of Nicer Globe platform of ICC which is tracking of hazardous chemical transportation. Drivers are trained periodically to face the hazards of chemicals.

Products are analyzed for safety of its usage throughout the entire life cycle to employees, customers, public and the environment. Product Approval Request for ensuring all product safety information such as MSDS, GHS Classification, Packaging & labelling requirements etc. before it will be approved for manufacture at site.

In recognition of the above, **Indian Chemical Council** is pleased to confer the **ICC ADITYA BIRLA AWARD FOR BEST RESPONSIBLE CARE COMMITTED COMPANY** for the year 2020 on **LANXESS India Private Limited**.



## ICC AWARD FOR THE BEST NICER GLOBE USER COMPANY

Conferred on

**LANXESS INDIA PRIVATE LTD.**

# CITATION

**LANXESS India Private Limited** is one of the major players in the country engaged in as manufacturing and supply of intermediaries, additives, specialty chemicals and plastics.

LANXESS India Private Limited has been the founder member of Nicer Globe and played active role in strategy, development and effective usage of its services.

The numbers given below indicate its commitment:

PARAMETER	COUNT
1. Distance Travelled by All Transporters (Top 6 LSP's)	38,70202 Kms
2. Total Number of Trips Defined on System	1338
3. Total Number of Trips Completed on System	8291
4. Total Number of Gate Checks Completed	21870
5. Total Number of Vehicles Rejected on System	640

In recognition of this exemplary performance, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR THE BEST NICER GLOBE USER COMPANY** for the year 2020 on **LANXESS India Private Limited**.

ICC AWARDS 2020



**AWARD RECEIVER**  
**MR. MAHENDRA SHELKE**  
HEAD – GLOBAL  
PROCUREMENT & LOGISTIC  
LANXESS INDIA PRIVATE LTD



**ICC AWARD FOR  
BEST NICER GLOBE TRANSPORTER**  
*Conferred on*  
**SANKARI ROADWAYS**

**CITATION**

**S**ANKARI ROADWAYS is one amongst the 400+ logistics service providers in the Nicer Globe platform.

Sankari Roadways provide their services to the Nicer Globe Members - BASF, National Peroxide Limited etc.

During their operations, it was observed that there were no vehicle rejects, while they had placed the vehicle for transportation.

It implies that the company's vehicles have been maintained well.

PARAMETER	COUNT
1. Distance Travelled for All Trips	6,51,290 KMS
2. Total Number of Trips Completed on System	697
3. Total Number of Vehicles Used	45

In recognition of the exemplary association with Nicer Globe, **Indian Chemical Council** is pleased to confer the **ICC AWARD FOR THE BEST NICER GLOBE TRANSPORTATION COMPANY** for the year 2020 on **SANKARI ROADWAYS, Salem, Tamilnadu**.

**ICC AWARDS 2020**



**AWARD RECEIVER**  
**MR. P. R. ARUN**  
PARTNER  
SANKARI ROADWAYS



# ICC D.M. TRIVEDI LIFETIME ACHIEVEMENT AWARD FOR CONTRIBUTION TO INDIAN CHEMICAL INDUSTRY (Management of Industry)

Conferred on

**DR. SANTRUPT MISRA**

GROUP DIRECTOR, CARBON BLACK; DIRECTOR, CHEMICALS; AND DIRECTOR, GROUP HUMAN RESOURCES  
ADITYA BIRLA GROUP

## CITATION

**D**R. **SANTRUPT MISRA** is currently the Group Director, Carbon Black; Director, Chemicals; and Director, Group Human Resources for the Aditya Birla Group, a USD 45 Billion global conglomerate.

Dr. Misra holds two Post Graduate degrees in Political Science and in Personnel Management & Industrial Relations, from the Utkal University & the Tata Institute of Social Sciences, respectively. In addition, he also holds two PhDs, from India & UK, in Public Administration and Industrial Relations, respectively, and an honorary D.Sc. degree from Aston University, U.K. He is a Fellow of the National Academy of Human Resources (NAHR), USA; Hon. Fellow of the Coaching Federation of India; an Eisenhower Fellow, an Aston Business School Fellow, an AIMA Fellow and a Commonwealth Scholar.

A business leader and an HR Professional of standing, with over three decades of experience in global business leadership, corporate governance, organizational transformation, non-profit leadership, and professional development, Dr. Misra has worked at Board level for over two decades as Non-Executive Director and Executive Director in publicly listed companies, unlisted companies, and not for Profit Organizations both in India and overseas. He is a Director in several companies of the Aditya Birla Group including Aditya Birla Capital Ltd., Grasim, and Birla Carbon Thailand, which are listed companies. He was an Independent Director on the Board of the Oil and Natural Gas Corporation Ltd. (Revenue US 61 Billion), a leading Government of India enterprise, and the Chairperson of the Board of Governors of the National Institute of Technology, Rourkela.

Dr. Santrupt Misra is also on Governing Bodies of professional organisations/associations such as the Association of Executive Search Consultants (AESC)

U.S.A. He was also on the Board of the Xavier's Institute of Management, Bhubaneswar and the Worldwide ERC, USA. He also served as a member of the SHRM Certification Commission, USA.

Dr. Misra has recently been appointed as the Chairman of the Project Advisory Committee for the 'Ekamra Kshetra Scheme', an Odisha State Government project of immense significance for the heritage of Odisha and of cultural significance for the country. He is also a Co-opted Member to the Governing Council (GC) of the United Nations Global Compact Network India (UN GCNI), for a two-year term.

Under his leadership Birla Carbon has emerged as a global leader in the carbon black space from its beginnings as a regionally focused carbon black player. He has been instrumental in developing a strong employer brand for the Aditya Birla Group, which was named the Best Employer in India, Great Place for Leaders to Work, and Top Company for Leaders by Aon Hewitt, Fortune Magazine, and RBL Group, respectively.

In recognition of his outstanding contributions, **Indian Chemical Council** is pleased to confer the **ICC D.M. TRIVEDI LIFETIME ACHIEVEMENT AWARD FOR CONTRIBUTION TO INDIAN CHEMICAL INDUSTRY (Management of Industry) for the year 2020 on DR. SANTRUPT MISRA, Group Director, Carbon Black; Director, Chemicals; and Director, Group Human Resources for the Aditya Birla Group.**



# ICC D.M. TRIVEDI LIFETIME ACHIEVEMENT AWARD FOR CONTRIBUTION TO INDIAN CHEMICAL INDUSTRY

(Education & Research)

Conferred on

**PROF. (DR.) ANIRUDDHA B. PANDIT**

VICE CHANCELLOR, INSTITUTE OF CHEMICAL TECHNOLOGY

## CITATION

**P**ROFESSOR ANIRUDDHA B. PANDIT, Vice Chancellor, Institute of Chemical Technology (ICT), is one of the highly decorated chemical engineers, researchers and consultants in India having many accolades and honours to his credit.

His research interests are truly varied in which he has developed fundamental knowledge and application to industry which include Physical and Chemical Processing applications of Cavitation phenomena, Sonochemistry, Ballast Water Treatment, Study of opportunities in industrial wastewater treatment and its reuse applications, Synthesis of chelating agents for wastewater treatment, Mixing in Mechanically agitated contactors: Experimental and CFD Investigations, Design of nozzles for hydrodynamic cavitation: Experimental and CFD Investigations, Modelling of Stoves, Optimization of cooking devices, Polymer Degradation, Cellulose Dissolution, Use of nonconventional energy sources, Development of novel ceramics from waste, Synthesis of Nanomaterials (organic-inorganic), Pyrolysis of biomass for value-added products, Application of biochar for improving soil fertility, Life Cycle Assessment (LCA) Studies, Portable device for detection of heavy metal, bacteria and water contaminants, Biotechnology: Microbial disinfection using hydrodynamic cavitation, Protein modification, Cell disruption, Selective recovery of intracellular biomolecules at the cell disruption stage, Magnetic Nanoparticles (MNP) for enzyme immobilization, Microbial fuel cell, Portable microscope for diagnosis and educational purposes, and Degumming enzyme development for textile industry.

Professor Pandit is one of the highly sought-after consultants to process industries. He has guided 54 Ph.Ds. and 79 Masters Students who are highly placed in industry and academia. He has published 403 international papers. He is a fellow of prestigious national and international academies: The World Academy of Sciences, 2015, National Academy of Sciences in India, Allahabad, 2009, Indian National

Science Academy, Indian Academy of Sciences, 2008, Indian National Academy of Engineering, 2006 and Maharashtra Academy of Sciences, 1996.

During last 5 years he has received over 22 awards such as: Vishwakarma Medal, Indian National Academy of Science (I.N.S.A.), 2015; Sir J. C. Bose Fellow of the Department of Science and Technology, 2015; Best Teacher Award (Final Year B.Tech.), 2016-17, 4. India Innovation Growth Programme 2.0 Award (I.I.G.P.), 2017; Shri S. M. Mokashi Innovation Endowment Award' 2016-2017 received at Institute of Chemical Technology, Mumbai, Prof. R. A. Rajadhyaksha Best Teacher Award of UDCT, 2018, India Innovation Growth Programme 2.0 Award (I.I.G.P.), 2018; C-Zero Challenge Award (Novel Microbial Disinfection), 2018; C-Zero Challenge Award (Novel Ceramics), 2018; 'Best research group' by ICT Mumbai 2018; Shri G. M. Marve Prize for Most Research-Oriented group from Chemical Engineering, 2019; Arohan Social Innovation Award- Gold Category, Infosys 2019; 'Outstanding Achievement in R & D' CHEMTECH Leadership & Excellence Award, 2019; 21. Best Teacher Award (Final Yr. B.Tech.) of the year 2018-19; Best Teacher Award, ICT Mumbai, on 17 occasions out of 22 years.

In recognition of his outstanding contributions, **Indian Chemical Council** is happy to confer the **ICC D.M. TRIVEDI LIFETIME ACHIEVEMENT AWARD FOR CONTRIBUTION TO INDIAN CHEMICAL INDUSTRY (Education & Research) for the year 2020 on PROFESSOR (DR) ANIRUDDHA B. PANDIT, Vice Chancellor, Institute of Chemical Technology, Mumbai.**



## ICC LIFETIME ACHIEVEMENT AWARD

Conferred on

**MR. AJAY S SHRIRAM**

CHAIRMAN & SR. MANAGING DIRECTOR  
DCM SHRIRAM LTD.

## CITATION

**M**R. AJAY S SHRIRAM is the Chairman & Sr. Managing Director of DCM Shriram Ltd., a Company which came into existence after the restructuring of the erstwhile DCM Ltd., in 1990. Since then, the company has grown from its modest beginnings to a multiproduct business conglomerate with a turnover of over Rs. 8300 Crores.

Mr. Ajay S Shriram had his school education at The Doon School, Dehradun followed by graduation in Commerce from Sydenham College, Mumbai. He has attended several Management Courses including the prestigious Programme for Management Development (PMD) at the Harvard Business School.

The Shriram Brothers, Ajay, Vikram and Ajit, have taken DCM Shriram to new heights by nurturing its strong brand equity, adhering to ethical values, following highest standards of Corporate Governance, being customers focused and rewarding its shareholders.

DCM Shriram Ltd. has contributed significantly to the growth of Chemical Industry in India. The Company was a pioneer in manufacturing of Chlor Alkali with world class plants in Rajasthan and Gujarat and played a leading role in the growth of the Vinyl Industry. The Company introduced uPVC window technology in 2004, through its Fenesta Brand. This has set a 'green' benchmark with features of energy conservation and protection of indoor environment.

Mr. Ajay S Shriram was President of Confederation of Indian Industry in 2014-15. He has been President of The International Fertilizer Industry Association, Paris (2009-11), The Fertilizer Association of India (2000-02), The Alkali Manufacturers Association (1995-97), and was Chairman of CII-Family Business Network from 2015 to 2021. He has chaired several CII Committees and continues to play an active role in various CII forums.

Mr. Ajay Shriram has been conferred with Degree of Doctor of Letters by BML Munjal University. He is the Chairman of the Governing Body of Shri Ram College

of Commerce and Indian Institute of Management, Sirmaur and has significantly contributed to promoting higher education in India.

He has represented the country at global forums, including being part of the Prime Minister's and Finance Minister's Business Delegations. In 2014, The Chemicals and Petrochemicals Manufacturers' Association conferred on Mr Shriram a Lifetime Achievement Award for his contribution to the Chemicals and Plastics Industry.

Mr. Ajay Shriram is a dynamic and visionary leader. A consensus builder, with genuine concern for society and company employees. He exemplifies a perfect blend of old values and contemporary thinking. He continues to build on the legacy of Sir Shri Ram by adopting latest technologies to create a world class organization. Mr. Shriram places great importance on ensuring a safe and environmentally compliant work place. He lays special emphasis on employee wellbeing and has always believed that "An organization is nothing but its people". He is a source of inspiration for all those who know him and interact with him.

In recognition of his outstanding contributions, **Indian Chemical Council** is pleased to confer the **ICC LIFETIME ACHIEVEMENT AWARD for the year 2020** on **MR. AJAY S. SHRIRAM, Chairman & Sr. Managing Director, DCM Shriram Ltd.**

