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Ethical, Sustainable, Profitable Growth

Global Warning is issued against Ozone Depletion!

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CTC PHASE-OUT: GTZ-Proklima SUPPORTS INDUSTRIES

Carbon Tetra Chloride (CTC) has proven to cause damage to health and environment. Considering its ill effects, international community has decided to phase out this harmful solvent and India as a participating country has already drawn a National CTC Phase Out Plan which has resulted in lesser availability of CTC for MSMEs. GTZ Proklima, a multi-government funded initiative, is providing "FREE OF CHARGE" technical assistance to industries in India for cheaper and profitable alternatives of CTC.

CTC and its uses

CTC (chemical formula CCl₄) is used as solvent across a vast range of industry segments. Its solvency power, non-flammability and the low cost has made CTC a popular solvent in wide array of cleaning applications including the manufacture of capital goods, cleaning and maintenance of equipment, offset printing and textile industry. The automobile industry also uses CTC for Degreasing, contact cleaning and foundries for Millipore testing.

CTC - Environmental and health hazards

There is still more to CTC. Once the solvent evaporates, it rises up high into the atmosphere. Reaching altitudes above 15 km it begins a work of destruction of the fragile layer of ozone. This ozone layer protects our planet from harmful ultraviolet (UV-B) rays from the sun as higher concentrations of UV-B causes skin cancer, eye cataract and suppression of immune systems in human beings. The decrease in ozone has resulted in a growing "ozone hole" over Antarctica and Australia. A recent study shows that the hole is larger than 8 times the size of India. One single chlorine atom from CTC can destroy more than 1 lakh ozone molecules.

There are serious occupational health hazards associated with CTC. High exposure to CTC can cause damage to lungs, liver, kidneys and central nervous system. CTC has proven to cause cancer in animals and is possible carcinogenic on humans.

Montreal Protocol and CTC Phase-out plan in India

The international community has signed the Montreal Protocol on phase-out of ozone depleting substances (ODS) such as CTC and CFC (chlorofluorocarbons). The Montreal Protocol came into existence on September 16, 1987 and last year it celebrated its 21st anniversary. Till date 193 countries have already signed this successful international convention.

India became a signatory to the protocol in 1992 and since then has taken steps to reduce the supply of CTC in the country. As per the plan by the end of 2009 CTC will be completely removed from the Indian markets. The reduction of targets may be technically achieved by regulatory interventions alone. However, a guiding principle of the implementation of the

Montreal Protocol is to ensure that, in the course of change-over, no undue burden arise for the affected industries in the country.

As the CTC Phase-out Plan progresses in the country, thousands of the small and medium scale enterprises (SMEs) that form the majority of the CTC user group may face a shortage of CTC supply. This may require urgent attention by these industries to search for alternate solvents and technologies that eliminate the use of CTC. However in the current scenario there exists limited experience with the alternative solvents and quite often SMEs may as well lack financial capacity to adapt to radical technological alternatives that eliminate the use of CTC.

Under the framework of the Multilateral Fund of the Montreal Protocol, Germany and France have mandated GTZ-Proklima to provide technical assistance to the affected industries in India. The primary objective is to enable industries to take informed decisions on alternatives that safeguard quality, competitiveness and workers health, while being ozone friendly as well. GTZ-Proklima's implementation model and achievements.

GTZ-Proklima provides "FREE OF CHARGE" technical assistance to the industry users in India with annual CTC consumption not exceeding 10 metric tons. GTZ-Proklima, in collaboration with various associations and apex organizations across India, identifies CTC dependent industries, understands the manufacturing process, identifies alternatives and complements these findings with case studies and health risk assessment. Eventually it shares results with the industry through publication and technical seminars.

The road ahead

In coming months GTZ-Proklima will be expanding its efforts in providing technical assistance to industries in the areas of metal degreasing. The focus will be on identification of industries such as automotive components, contact cleaning and electronic industry.

The challenge is formidable as the nature of interventions and alternatives required for one industry may not be suitable for another. Therefore dissemination of existing knowledge and identification of both technical and economical concerns of the affected industries will be the foremost issues. Within various industrial sectors many alternative solvents could replace CTC. GTZ-Proklima endeavors to enable the SMEs to take informed decisions in the substitution of CTC.

In case you are using CTC in your industry and might be interested in any information on the substitution for the same please feel free to contact the author for further information and free assistance. Please visit our website at www.ctc-phaseout.org

(The author is working as a consultant for GTZ Proklima International under the National CTC Phase-out Plan)