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Role of Chemicals in Social Upliftment: Public Awareness

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Abstract: Chemistry and chemicals are running with us from Womb to tomb. We use chemicals everyday in huge amount without thinking much about them. We need one Chemical for alive and other chemical for death .This paper focused on the chemicals, directly effect society. We can't survive without chemicals but they have hazardous effects too. Thus we should be aware about them.

Keywords: Chemistry, Chemicals, Society, Hazardous

I. INTRODUCTION

Everything around us is chemistry. All the items, matter around us built with chemicals. The world chemistry included chemistry, metallurgy, philosophy, astrology, astronomy, mysticism and medicine. Traditional chemistry starts with the study of elementary particles, atoms, molecule, substances, metal, crystals and other aggregates of matter.

Chemistry divided in ten groups... Organic, inorganic, physical, analytical, biochemistry, environmental, industrial, polymers, thermochemistry, theoretical. All the manmade objects are involved in chemistry, what we touch in our life touched by chemistry. Now-a-days we encounter approximately 90-100 chemicals before our breakfast. Chemical is not only near to scientist working in laboratory but these are integral part of our daily life. All living and nonliving things need chemicals to function and survival.. Our body is 90 percent water means H_2 and O_2.Our day starts with mouthwash included fluoride and H_2O_2.Then we commonly use toothpaste contain $CaCO_3$ and NaF_2.Thenafter one important thing use for clean our body is soap is fill with esters.

Titanium dioxide and zinc oxide make sunscreen, lead acetate occurs in hair colour.

Coaltar is use in dandruff treatment and colouring dyes, octyl methoxy cinnamate use in UV filters .Triclosen used for preservation and antibacterial agent for personal care products like hand-wash, soap and toothpasteAspirin is derived from Salicylic acid. It is super medicine for Anti inflammatory drugs. The ethylene glycol in the washer fluid lowers the freezing point of water so the frost goes from solid to liquid and can be wiped away. Resorcinol widely known and used for antiseptic and disinfectant.

On exposure to air, the iron oxidizes (rust) and gives off energy, warming than the surrounding area. We eat starch i.e. amylase with sucrose or glucose. We drink something in morning like dihydrogen mono oxide.

We are going to work or other purposes Burns hydrocarbons and air. In electric car compounds reacts to give off electrons. When we flex a muscle to pickup the bottle we are having tons of different chemicals reactions happening in our body to-do that without chemicals our ecosystem can't exist. Our taste links with chemistry like sweet taste due to Carbohydrates. We feel taste with the help of chemistry too(hydrogen bond).

A. Some Common name of the Chemical, Molecular Formula and Use

1) *Baking powder,$NaHCO_3$*; Sodium bicarbonate: Used for baking ,cooking, releases CO_2 in reaction with other ingredients



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2) *Soap, Esters*: Used for bathing and washing clothes



3) *Detergent:* Sodium sulphate, sodium hydroxide and phosphatecompounds, Used for washing clothes
4) *Toothpaste:* Calciuym carbonate, sodium flouride, Used for cleaning teeth while brushing



5) *SaltNaCl; Sodium Chloride*, Used in seasoning for cooking; also used as preservative
6) *Vinegar:*$C_2H_4O_2$. acetic acid, ethanoic acid, Used as preservative and for seasoning foods. Utilized for various household cleaning uses.
7) *Graphite Carbon*: Used in Pencil
8) *Alcohol, Ethanol:* (C_2H_6O) Used in alcoholic drinks

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9) *Bleaching Powder: NaOCl* Commonly used domestic bleach. Used for cleaning purposes
10) *Sugar, Sucrose;* $C_{12}H_{22}O_{11}$,Used in cooking as sweetner
11) *Aspirin:*$C_9H_8O_4$, acetyl salicylic acid Used in various medicines



12) *Mouthwash:* H_2O_2,hydrogen peroxide, Used for personal hygiene.
13) *Caustic Soda: NaOH, sodium hydroxide* It's a highly corrosive alkali which is used for cleaning, unblocking sinks, drains and toilets.
14) *Moth balls:* $C_6H_4Cl_2$; 1,4-dichlorobenzene Have strong pungent smell.
15) *Chalk:*$CaCO_3$; ***calcium carbonate*** Uses incl. blackboard chalk, pavement (or, in USA, "sidewalk") chalk, gymnastics and rock-climbing, and sometimes in toothpaste.

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II. CONCLUSION

A. Role of chemicals in Social Upliftment

Science and technology are tools for social change. These could be engine of society development. It would be impossible to list them at the heart of environmental issues. One Chemical make nutrient and other make pollutents, all the flavour and colour are Chemistry. Everywhere everything like food, air, fuel, drug, colour, cloth is mixture of Chemicals.. Food preserves by chemicals and spoil by chemicals too.

Thus on the basis of above survey we can say chemistry can play a very important role in Social Upliftment but in the lack of awareness we can't use Chemistry in a beneficial way because chemicals have disadvantages too like... . Cosmetics in everyday we use mineral oil contain carcinogens. Sodium laureth sulphate is so toxic. Talcom powder causes ovarian cancer. Some chemicals like Parabens have been found endocrine disruption effects. Parabens and phthalates are used asplasticisers and solvents uses in fragrances, hair products, skin lotions, nail polish and nail hardneness. They affected reproductive organs. Only methyl and ethyl Parabens are safe. Toluene has shown in nail polishes but it causes neurological effects. Butyrate hydroxyl anisole used as preservation in some lipstics but it shows carcinogenic characters in high amount. CFC is a main component required by air conditioner to fight with high temperature in summer and we feel cool relax but we avoid the hazardous effect of CFC attacked on Ozone layer and in the need of cool relax we are coming in the hard atmosphere of UV rays. Similarly NH_3 is required by refrigerator to avoid spoilation of food but refrigerated food and vegetables, fruitslost their nutrition and taste on keeping in ammonical atmosphere for long time. In dairy industries huge consumption of Chemicals reported. In rural and illeterate villages people don't know the hazardous effects of preservation; they use cheap chemicals (detergent, distemper, auxitosin) in big amount to avoid loss in their business. Now days an era of fast-food and packets running . This makes life easy and fast. Our daily routines are so horrible.we are working in office, society and family in same time thus we want fast routine and have no time and desire for queries regarding these food contents. These foods have number of Chemicals for sharp taste and preservation. Some of them are carcinogenic too. Similarly other fields like medicine and cosmetics also embeded in the sea of Chemicals. I have seen often people are addict for painkiller as they don't know about harmful anaesthetic effects of painkiller as they also destroy different organ like intestine.

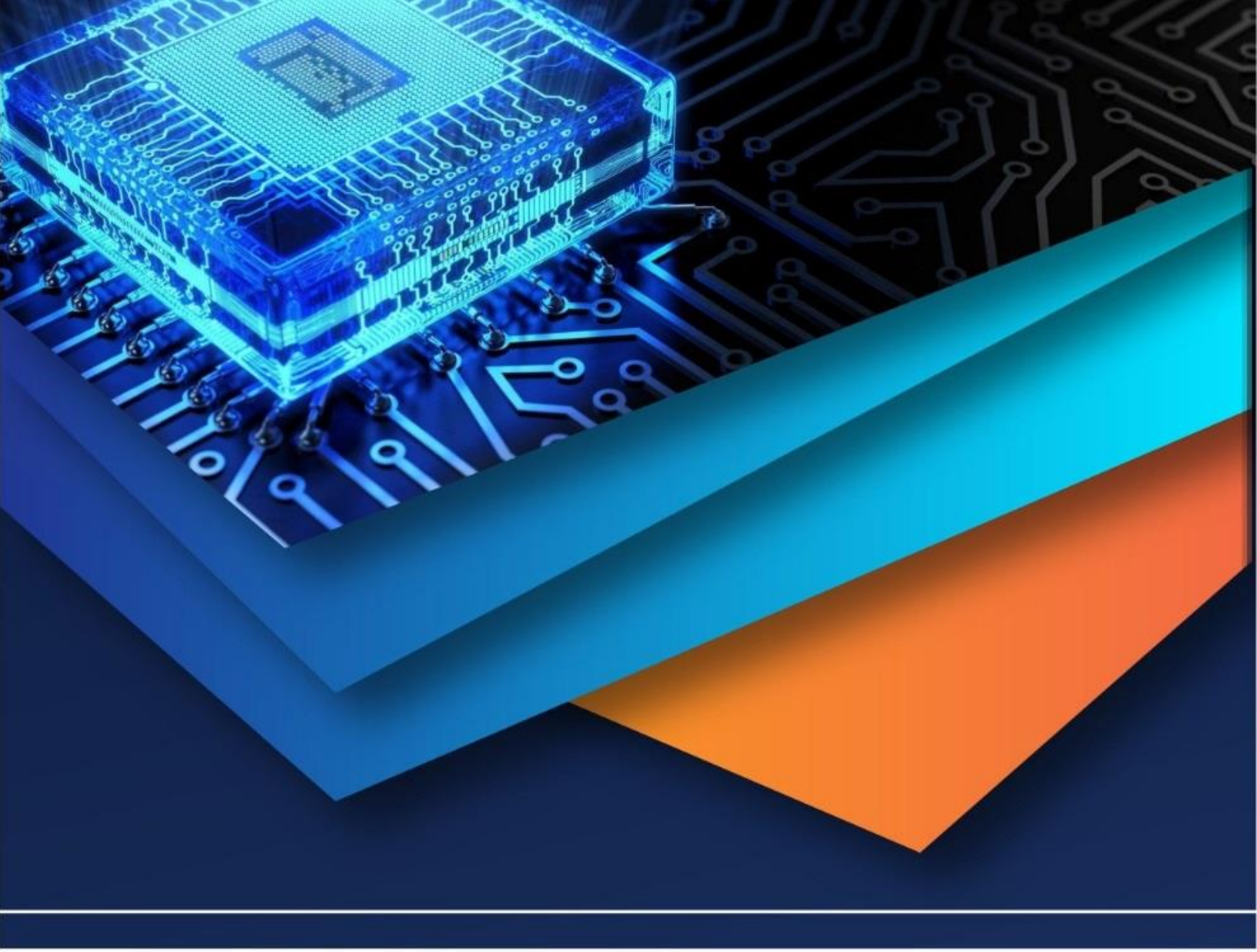
This era when people want to glow and shine by anyway. They are crazy about glamour; they use many cosmetics in daily motive and unknown about their carcinogenic effects on skin.

Thus in my view this is the time when people must aware about harmful effects of Chemicals. The invention of different compounds and products needed by world but with knowledge and awareness of harmful effects and this knowledge and awareness should be easily reachable to every literate or illeterate person who uses this.

REFERENCE

[1] All the above text is from general survey and discussion available in google search.

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