ISSN 2181-3187

REDUCING THE IMPACT OF HARMFUL SUBSTANCES ON THE HUMAN BODY AT PRODUCTION ENTERPRISES

Solimuhammadov Jamshidbek Sohibjon o‘g‘li
Andijan machine-building institute – bachelor student,Uzbekistan
solimuhammadovjamshidbek@gmail.com
Tel: +998911137125
Turakulova Gulasal Zohidjon qizi
Andijan machine-building insitute - teaching-assistant
gulasa22@gmail.com
Tel:+998946179086
Xoshimov O‘tkirjon Xakimjon o'g'li
Andijan machine-building institute – bachelor student,Uzbekistan
hoshimovotkirbek133@gmail.com
Tel: +998889571904

Annotatsiya: Maqolada zaharli moddalar va ulardan himoyalanish choralari. Zaharli moddalardan himoyalanishga bo‘lgan talablar. Zararli moddalar va nurlarni inson organizmiga ta’siri va ulardan himoyalanish va Ishlab chiqarishdagi ishchi zonalar havosi ko‘p hollarda texnologik jarayonlarning tabiiy zaharlari bilan ifloslanishini kamaytirish haqida malumotlar keltiribketamiz.

Абстракт: В статье указаны токсичные вещества и меры защиты от них. Требования к защите от токсичных веществ. Мы предоставляем информацию о влиянии вредных веществ и лучей на организм человека и защите от них, а также снижении загрязнения воздуха в рабочих помещениях на производстве во многих случаях естественными ядами технологических процессов.

Abstract: The article indicates toxic substances and measures to protect against them. Requirements for protection against toxic substances. We provide information about the influence of harmful substances and rays on the human body and protection from them, as well as reducing air pollution in working areas in production due to natural poisons of technological processes in many cases.

Kalit so‘zlar: Korxonalarida, qo‘rg‘oshin, simob, bochkalarda, barabanlarda, kanistirlarda, shisha idishlarda, qoplarda, yashchiklarda, qutilarda.

Ключевые слова: На предприятиях имеется свинец, ртуть, бочки, бочки, канистры, стеклянная тара, мешки, коробки, ящики.

Key words: In enterprises there is lead, mercury, barrels, barrels, cans, glass containers, bags, boxes, crates.

ISSN 2181-3187

Introduction: In many cases, the air in industrial work areas is contaminated with natural poisons from technological processes. The combustion of fuel in furnaces, boilers and internal combustion engines produces flue gases.

For example, many toxic substances used in agriculture are special substances that increase plant productivity and destroy plant pests. They may contain mineral fertilizers and about 150 types of pesticides.

In addition to them, vapors and gases from petroleum products, varnishes, paints, acids, alkalis, which are also rural, are dangerous. We should not forget that these are substances that are dangerous to humans and are widely used in economics and industry.

Some poisons enter the human body through the respiratory and digestive organs. Long-term exposure to small amounts of toxic substances (lead, mercury) leads to persistent occupational poisoning, while large amounts cause acute poisoning. As the temperature rises, many toxic substances easily pass from a liquid state to a vapor-gas state and in this form enter the human body through the respiratory system.

Through the respiratory tract of the human lungs, these substances, together with the air, are absorbed into the blood and pass into the larger circulatory system, affecting the body 20 times more strongly than such substances entering the body through other routes.

Harmful substances can harm the human body, cause occupational diseases and cause other unpleasant situations. Chemical substances that enter the body and cause various disorders and diseases are considered industrial poisons. They are in the form of gases, vapors, dust. Industrial poisons are inorganic (halogens - chlorine, bromine, etc.; sulfur compounds - hydrogen sulfide, sulfur dioxide, etc.; nitrogen compounds - ammonia, nitrogen oxides, etc.; phosphorus and its compounds - hydrogen phosphide, etc.) and organic. (benzene, alcohols, ethers) are divided into poisons.

Biological harmful factors have different effects on the body. Examples of this are allergies, dizziness, nausea, increased body temperature and other effects.

To prevent exposure to the above factors, reduce the number of microorganisms in the air of the work area, use disinfection, use antibacterial lamps; including improving ventilation systems, sealing cabins and equipment, reducing the amount of organic dust in the air, using special clothing and medical supervision. In addition, other factors also have a harmful effect on the body. These include acids, alkalis, fuels and lubricants, etc.

For example, gasoline can irritate the skin and cause chronic eczema. Eczema and similar complications can also appear on the skin under the influence of lubricants.

When poisoned by gasoline and lubricant vapors, changes such as headache, weakness, nausea, rapid heartbeat, and dizziness are observed. Gasoline and lubricants are also dangerous because they can explode. When working with them, it is

ISSN 2181-3187

recommended to use gas masks and special clothing. It is recommended to protect the skin of your hands with biological gloves.

The area of production premises for construction is selected taking into account a number of sanitary requirements. These include the availability of drinking water sources, the absence of wetlands, etc. Buildings and structures on the territory of the enterprise are built facing the direction of light and wind for the purpose of natural lighting and ventilation.

Residential buildings are built on the windward side around industrial buildings. The reason for this is to reduce exposure to smoke, dust, noise, etc., rising from the manufacturing plant. Depending on the nature and quantity of hazardous waste, a sanitary protection zone 500-1000 m wide will be established between production enterprises or facilities and the residential area.

Reducing the impact of harmful substances on the human body at manufacturing enterprises can be achieved through various measures, including:

1. Implement adequate ventilation systems to minimize exposure to harmful fumes and gases in the workplace.

2. Provide workers exposed to hazardous substances with personal protective equipment, such as masks, gloves, and goggles.

3 Development and implementation of procedures for the safe handling of chemicals and other hazardous substances.

4. Monitor air quality regularly and take steps to reduce exposure if it exceeds safety standards.

5. Train employees in the proper handling and disposal of hazardous materials, including emergency response procedures.

6.Introduction of environmentally friendly methods and technologies into production processes to reduce the use of pesticides.

7. Promote a culture of safety and health among employees through regular training programs and awareness of potential hazards.

8. Regular medical examination of employees to identify side effects caused by exposure to harmful substances.

Mineral fertilizers, plant growth stimulants and pesticides are widely used in plant growing practice as disinfectants. They provide a high quality harvest. However, in certain quantities these substances are dangerous to humans and the environment.

Humans are exposed to chemicals directly (during the preparation of mixtures, processing seeds, soil, plants) and indirectly - through plant and food products, fruits and vegetables obtained from fields treated with chemicals, as well as through products of animal origin (meat, Cottage cheese, milk, eggs, etc.) and products of plant origin are used as feed, which can be detected when the content of nitrates and pesticides is higher than the standard level. Pesticides are more dangerous to humans than mineral

ISSN 2181-3187

fertilizers.

Based on their application, pesticides are divided into insecticides (to control insects), acaricides (to control mites), rodenticides (to control harmful rodents), fungicides (to control fungi), bactericides (to control bacteria), herbicides (to control weeds).) and others.

The classification of pesticides according to hygienic properties is as follows:

- depending on the poisoning when administered into the stomach of experimental animals (highly effective, extremely toxic, low toxic);
- depending on the skin poisoning (acute, moderate and mild);
- by variability (extremely dangerous, dangerous and less dangerous);
- according to the strong impact of toxic substances on the body (extremely high, noticeable, moderate, less noticeable);
- by stability in soil (very stable poisoning - more than 2 years, stable - from 0.5 to 2 years, moderately stable - from 1 to 6 months and less stable - up to 1 month).

Basic methods for preventing poisoning by pesticides and mineral fertilizers: compliance with norms, rules and instructions on labor protection when working with them. Workers should use personal and collective protective equipment, strict adherence to agricultural technology, crop treatment and chemical consumption, chemical treatments at the required distance from places of residence, barns, reservoirs, at the permissible wind speed given to the crops. storage of the last period of chemical treatment until harvest; use of studied and only approved drugs.

Persons who do not meet medical conditions and who have undergone an initial and periodic medical examination are allowed to work with pesticides and mineral fertilizers. Pregnant and lactating women, under 18 years of age, over 55 years of age (men) and over 50 years of age (women), as well as female mechanics may be involved in spraying, dusting, lifting and lowering pesticides and mineral fertilizers to work with them. pesticides. Considering the extreme danger of pesticides, contact with strangers is prohibited when working with them. Pesticides should not be left unattended in fields or other areas.

Farm managers are obliged to notify residents of villages and beekeepers about the duration, location and type of work at least 2 days before chemical treatment of fields. Safety and warning signs will be installed at a distance of at least 300 m from the boundary of the treated area.

Pesticides and mineral fertilizers are stored in separate buildings in accordance with GOST 12.3.041-86 and GOST 12.3037-84. It is strictly forbidden to store feed, chemical mixtures, feed additives, paints, varnishes, food products, etc. in them. A separate room and an additional toilet, shower, personal protective equipment, water, soap, towels, first aid kits and other premises must be allocated for storage facilities.

Coated and uncoated mineral fertilizers are stored in separate sections. Uncovered

ISSN 2181-3187

ones are stacked to a height of 2 meters, and closed ones are stacked on top of each other with a base so that moisture does not pass under them. The distance between fences should not be less than 3 m, and the distance from the fences to the warehouse wall should not exceed 1 m. The distance between the top of the warehouse and the ceiling of the warehouse should not be less than 0.4 m.

Pesticides are brought from chemical plants and stored only in containers (barrels, barrels, canisters, glass containers, bags, boxes, crates), on flat or folding pallets, and on racks. All types of pesticides (herbicides, fungicides, etc.) are stored in different containers, the distance between them should not be less than 1 m. Name of the drug, percentage of the substance, pesticide group, safety. Symbol, weight, warning signs such as "Fire Danger" or "Explosion Danger" are written. Herbicides - red, defoliants - white, nematicides - black, fungicides - green, medicinal substances - blue, zoocides - yellow.

To eliminate the effects of pesticides and mineral fertilizers, it is necessary to have in stock a sufficient amount of means for purifying toxic gases, such as bleach, soda ash, etc. Pesticides are transported in the presence of a responsible person, by special or specially adapted transport, only in well-sealed containers.

Conclusions and offers:

The impact of harmful substances on the body at manufacturing enterprises can be reduced through various measures. By taking proactive steps to reduce human exposure to toxic substances in their manufacturing facilities, companies can create a safer and healthier work environment for their employees.

References:

1. Raximov Raxmatullo Rafuiqjon o‘g‘li, & Solimuhammadov Jamshidbek Sohibjon o‘g‘li & Hoshimov O‘tkirbek Hakimjon o‘g‘li. (2023). Logistika tiziming transport toshqil etuvchisi. Ta'limdagi zamonaviy muammolar va ularning ilmiy yechlari, 7(7), 27–33. https://esiconf.com/index.php/mpe/article/view/546
2. Raximov Raxmatullo Rafuiqjon o‘g‘li, & Solimuhammadov Jamshidbek Sohibjon o‘g‘li. (2023). Transportda logistika xarajatlarini va tariflarni shakllantirish. Butun dunyo ilmiy tadqiqotlar nazariyasi, 2(2), 106 114. https://esiconf.com/index.php/TOSROWW/article/view/543
3. Raximov, R., G’ulomova, Z., & G’ulomov, I. (2023). Shisha ishlab chiqarish va uni klasifikatsiyasi. Yangi O‘zbekiston talabalari axborotnomasi,1(2), 9-15.
4.Odiljonova, O., Ro‘zioxunova, O., & Raximov, R. (2023). Polimerlarning ishlatilish soxasi. Бюллетень студентов нового Узбекистана, 1(3), 24-26.
5.Rakhimov, R., & Saidahmedov, R. (2023). Intellectual diagnosis of the technil state of directional taxis. International Conference On Higher Education Teaching,1(1), 80–85. Retrieved from https://aidlix.com/index.php/de/article/view/89