SAFETY DATA SHEET OF CHEMICAL PRODUCT

Entered in Safety Data Sheet Register

Registration No 1 3 6 5 7 8 4 2 · 2 0 · 7 2 9 0 3 from «25» February 2022

Valid to «25» February 2027

Association Non-commercial Partnership
Coordinating Informational Center of CIS member states on approximation of regulatory practices

NAME

technical (as per regulatory document)	**Liquid argon**
chemical (as per IUPAC)	**Argon**
commercial	**Liquid argon, top grade, first grade**
synonyms	**not available**

OKPD 2 Code 2 0 . 1 1 . 1 1 . 1 2 2

EAEU HS Code 2 8 0 4 2 1 0 0 0 0

Reference designation and name of the regulatory, technical or information document for the product (GOST, TU, OST, STO, (M)SDS)

GOST 10157-2016 Gaseous and liquid argon. Technical Specifications.

HAZARD STATEMENT

Signal word: **Warning**

Brief (word) **description**: The product is marginally hazardous with low impact on human body in accordance with GOST 12.1.007. May cause skin and eyes cryogenic burns or injury. In an argon-rich atmosphere, a state of oxygen deficiency and asphyxiation may occur. May pollute the environment.

Detailed description: in 16 sections of the enclosed Safety Data Sheet

MAIN HAZARDOUS COMPONENTS	MAC w.z., mg/m³	Hazard Category	No. CAS	No. EC
Argon	not available	No	7440-37-1	231-147-0

APPLICANT: JSC Ural Steel (name of organization), Novotroitsk (city)

Applicant type: manufacturer, ~~supplier, seller, exporter, importer~~ -
(strike out whichever is not applicable)

OKPO Code: 1 3 6 5 7 8 4 2 **Emergency telephone:** 8(3537) 66-65-88, 66-46-22

Manager of the applicant organization _____ / I. F. Iskakov /
(signature) (full name)

stamp here

Safety Data Sheet (SDS) complies with UN recommendations ST/SG/AC.10/30 «GHS»

IUPAC	–	International Union of Pure and Applied Chemistry
GHS	–	UN recommendations ST/SG/AC.10/30 Globally Harmonized System of Classification and Labelling of Chemicals
OKPD 2	–	Russian Classification of Products by Economic Activities
OKPO	–	Russian Classifier of Enterprises and Organizations
EAEU HS Code	–	Eurasian Economic Union Commodity Nomenclature for foreign-economic activity
No. CAS	–	substance number in the Register of Chemical Abstracts Service
No. EC	–	substance number in the Register of European Chemicals Agency
MAC w.z.	–	maximum allowable concentration of chemical substance in the air of working zone, mg/m^3
Signal word	–	a word used for drawing attention to the hazardous level of the chemical product and chosen in accordance with GOST 31340-2013

1. Identification of the chemical product and information about manufacturer and/or supplier

1.1. Identification of chemical product

1.1.1. Technical name:	Liquid argon. [1] Hereinafter referred to as the Product.
1.1.2. Brief application recommendations (including limitations on application)	It is used to create a shielding atmosphere when welding, cutting and melting active and rare metals and alloys based on them, aluminium, aluminium and magnesium alloys, stainless chromium-nickel heat-resistant alloys and alloy steels of various grades, when refining metals in metallurgy, in the production of welding mixtures and other purposes. [1]

1.2. Information about the manufacturer and/or supplier

1.2.1. Full legal company name:	Joint Stock Company Ural Steel (JSC Ural Steel)
1.2.2. Address (postal and legal):	1, Zavodskaya str., Novotroitsk, Orenburg region, 462353
1.2.3. Telephone, including for emergency consultations and hours of work:	+7 (3537) 66-46-22; (3537) 66-65-88 (from 06-15 a.m. to 15-15 p.m. (Moscow time)
1.2.4. Fax:	+7 (3537) 66-27-89
1.2.5. E-mail:	m.mishchenko@uralsteel.com

2. Hazard(s) identification

2.1. Hazard class of chemical product in general: (information on hazard classification in accordance with RF legislation (GOST 12.1.007-76) and GHS (GOST 32419-2013, GOST 32423-2013, GOST 32424-2013, GOST 32425-2013)	Classification according to GOST 12.1.007: It is marginally hazardous substance with low impact on human body, hazard category 4. [1,2,3,5,11] Classification according to GHS: [1,2,11,24] - chemical product, refrigerated liquefied gas;
2.2. Information on the warning marking as per GOST 31340-2013	
2.2.1 Signal word:	Warning. [9]
2.2.2 Hazard pictograms:	 «Gas cylinder»
2.2.3 Hazard statement(s) (H-Statements)	H281: Contains refrigerated gas; may cause cryogenic burns or injury. [9,11]

3. Composition (information on ingredients)

3.1. Information on the product in general	
3.1.1. Chemical name (as per IUPAC)	Argon. [1]
3.1.2. Chemical formula:	Ar. [1,11]
3.1.3. General description of composition (taking into account the grade range; production method)	Liquid argon is obtained from atmospheric air and residual gases of ammonia production by low-temperature gas separation: the highest grade - the volume fraction of argon is not less than 99.993%; the first grade - the volume fraction of argon is not less than 99.987% [1].

3.2. Ingredients
(name, CAS and EC numbers, mass fraction (must be 100% in total), MAC w.z. or ASLI w.z., hazard categories, references to information

sources)

Table No. 1 [1,3,11,13]

Ingredients (name)	Volume fraction, %		Hygienic standards in the air of working zone		CAS No.	EC No.
	The highest grade	The first grade	MAC w.z., mg/m^3	Hazard category		
Argon not less than	99,993	99,987	not specified	No.	7440-37-1	231-147-0
Oxygen	0,0007	0,002			7782-44-7	231-956-9
Nitrogen	0,005	0,01			7727-37-9	231-783-9
Water vapor	0,0009	0,001			7732-18-5	231-791-2
Carbon compounds	0,005	0,001			None	

4. First aid measures

4.1. Symptoms:

4.1.1. In case of inhalation: Euphoria, followed by a feeling of heaviness in the head, impairment of mental capacity, numbness, impaired coordination of movements, mental fuzziness. In case when oxygen volume fraction is less than 19%, oxygen deficiency develops, in case of a significant decrease in the oxygen content, asphyxiation occurs. Inhalation of a large amount of argon results in a mental disorder, loss of consciousness, death occurs in a few minutes. [1-3,10,11,21]

4.1.2. In case of skin contact: Causes frostbite: loss of sensation in the frostbitten area of the skin, tingling or prickling, change in skin colour to white, blisters, darkening and necrosis of damaged skin areas may occur. [1-3,10,11,21]

4.1.3. In case of eye contact: Pain, blurred vision, severe burns. [1-3,10,11,21]

4.1.4. In case of ingestion: Ingestion is not considered a potential route of exposure. [1-3,10,11,21]

4.2. First aid measures for the injured persons

4.2.1. In case of inhalation: Remove to fresh air, keep warm and at rest, free from clothing that restricts breathing, give strong tea or coffee, seek immediate medical attention y. Start artificial respiration if medically required. First aiders must use personal respiratory and skin protection equipment. [1-3,10,11]

4.2.2. In case of skin contact: In case of contact with liquid, warm frostbitten areas with water. Cryogenic burns should be covered with a clean, lint-free cloth. Do not remove contaminated clothing. Seek immediate medical attention. [1-3,10,11]

4.2.3. In case of eye contact: Rinse with a small amount of water for several minutes (remove contact lenses, if it is easy to do). Seek immediate medical attention. [1-3,10,11]

4.2.4. In case of ingestion: Ingestion is not considered a potential route of exposure, no special assistance required. [1-,3,10,11]

4.2.5. Contraindications: Do not rub or massage the affected areas of the skin. Do not wash with hot water. Don't try to remove clothes in case of burns. [1-3,10,11]

5. Fire-fighting measures

5.1. General characteristic of fire and explosion hazards: (as per GOST 12.1.004)	Non-flammable. [1,2,11,23]
5.2. Indices of fire and explosion hazards (list of indices as per GOST 12.1.044 and GOST P 51330.0)	None. [1,2,11,23]
5.3. Hazards caused by combustion products and/or thermal destruction:	It does not burn and is not subject to thermal destruction. [1,11,23]
5.4. Recommended extinguishing media:	Use extinguishing media appropriate for main fire source. [11,20-23]
5.5. Prohibited extinguishing media:	No data. [11,20-23]
5.6. Personal protective equipment for fire-fighting: (PPE of fire-fighters)	General service uniform (fire-retardant suit complete with self-rescuer). In an environment with a volume fraction of oxygen less than 20%, wear insulating gas mask IP-4M or a hose gas-mask. [21-23]
5.7. Special fire-fighting procedures:	Cylinders (containers), when involved in fire, may explode when heated, as a result of an increase in pressure in them. Cool containers from as far away as possible. Enter the fire zone in special protective clothing using PPE. [11,22,23]

6. Accidental Release Measures

6.1. Measures to be undertaken to prevent harmful effect on people, environment, buildings, constructions, etc. in emergency situations	
6.1.1. General measures to be taken in emergency situations:	Isolate the hazardous zone in a radius of no less than 100m. Keep unauthorized people away. Correct the above distance based on the results of chemical monitoring. Enter the hazardous zone using complete protective clothing. Follow the fire safety measures. No smoking. Eliminate flame and spark sources. Stay upwind. Keep out of low areas. Give first aid to the injured. Call the emergency services. [11,21,22]
6.1.2. Personal protective equipment in emergency situations (PPE of emergency response teams)	Emergency teams must wear the insulating protective suit KIH-5 complete with insulating gas mask IP-4M or breathing apparatus ASV-2. In the absence of these models: an all-service protective suit L-1 or L-2 complete with an industrial gas mask with an aerosol filter and filter box A, a small box respirator. Gloves against the cold, gloves with increased wear resistance and impermeability, special footwear. [1,21,22,28]
6.2. Emergency response procedures	
6.2.1. Spill and leak response: (including response measures and environment precautions)	Take the vehicle to a safe place. Isolate the hazardous zone within a radius of 100 m. Call the gas rescue service. Notify the sanitary and epidemiological inspection bodies. Eliminate the leak in compliance with safety precautions, using personal protective equipment. If the leak is severe, allow the gas to be released completely. Isolate the area until the gas dissipates. Do not touch spilled material. [11,21,22]

6.2.2. Fire response:	Keep away from containers. Cool containers with water from a maximum distance. [1,11,20-23]

7. Rules for handling and storage of chemical product.

7.1. Safety measures for chemical product handling

7.1.1. Systems of engineering safety measures:	Sealing of equipment, utility systems, containers, exclude direct contact of personnel with the product, limit access to the product. The rooms shall be equipped with continuous-action forced suction and exhaust ventilation for ensuring MAC in the working zone air, monitor oxygen content in the air in the places of highest argon accumulation – in poorly ventilated rooms near the floor and in the pits. [1,2,4,5,11-14,16,21]
7.1.2. Environmental precautions:	Sealing of tanks, containers, cylinder. Prevent the product from entering the working area and the environment. Timely and due elimination of leaks and spills. Ensure intermittent monitoring of content of harmful substances in the working zone air. Follow the requirements for industrial waste accumulation, collection, placement, transportation and disposal. [1,4,5,11-14,16,21]
7.1.3. Recommendations on safe handling and transportation:	Transport cisterns, stainless steel cryogenic vessels with argon are transported as dangerous goods of hazard class 2 using all modes of transport in accordance with the rules of goods transportation effective for such mode of transport, and also safety rules for the transport of dangerous goods by rail. Container seal failure is not permitted. During transportation, the vessels shall be fixed against movement in any direction in relation to the supporting surface. When handling the product, follow the requirements of regulative documents stipulating the safety conditions for carrying out such type of activities: trained personnel who have passed an occupational safety, fire safety and first aid test are allowed to carry out handling activities. [1,11,18-22,25]

7.2. Rules for chemical products storage:

7.2.1. Safe storage life and conditions: (including guaranteed storage life, expiry date; substances and materials incompatible for storing)	For liquid argon – low temperature storage in cryogenic vessels and special cisterns, in the sheltered, ventilated warehouse, or at the open sites under cover protecting against atmospheric precipitation and direct sunlight, in the vertical position. Heating of the vessel surface over 60 °C can lead to intensive evaporation and vessel wall rupture. Guaranteed storage life is not specified. Combined storage is permitted only for substances of the same storage class are; follow special rules for combined storage of different gases.

	Substances and materials incompatible for storing: pharmaceuticals, foodstuffs and animal feedstuff, including supplements, combustible, explosive, oxidizing, flammable substances, aerosols, ammonia nitrate, organic peroxides, pyrophoric substances. [1,4,7,11,21,24,32]
7.2.2. Containers and packing: (including materials from which they are made)	Transport cisterns, gasifier systems, stainless steel cryogenic vessels according to regulative documents. By agreement with the consumer it is permitted to use other types of containers and packing ensuring quality, safety, tightness and integrity of the product. [1,32]
7.3. Safety measures and storage rules for household use:	It is not used in the household. [1]

8. Exposure controls and personal protection.

8.1. Working zone parameters subject to obligatory control (MAC w.z. or ASLI w.z.):	
	MAC w.z. for argon is not specified. In the atmosphere, monitoring is carried out by oxygen whose volume percent in the working zone air shall be no less than 19 %. [1,2,5,11,13]
8.2. Measures on keeping hazardous agents within allowable concentrations:	Availability of continuous-action forced suction and exhaust ventilation. Sealing of equipment, utility systems, containers. Intermittent monitoring of oxygen content in the working zone air in accordance with GOST 12.1.005 by agreement with local state public health inspectorates is carried out according to production control program. [1,4,11,14,21,27]
8.3. Personal protective equipment for personnel:	
8.3.1. General recommendations:	Protection of skin, conjunctiva, respiratory organs is required when working with the product. Follow personal hygiene rules. Avoid direct contact with the product (do not breathe in). Do not eat, drink and smoke in the working zone. Periodically clean personal protective equipment. Availability of spare kits of personal protective equipment. Follow occupational health and safety, industrial safety, hygiene rules. When handling, avoid spillages of the product. Availability of fire fighting equipment. Personnel no younger than 18 years old are admitted for work with the product according to health checks. Pregnant and breast-feeding women, the sick with past history of organic damage of liver, kidneys, nervous system, upper airways, skin, organs of sight, people that are on record in narcological and psychoneurological institutions are not admitted for work with raw materials and/or finished product.

	Occupational safety induction training. Carry out preliminary and periodic health checks of personnel in accordance with the order of Russian Ministry of Public Health N 29н dated 28.01.2021 [1,11,14,27,28,34]
8.3.2. Respiratory protection (types of respiratory protective equipment):	Half-mask or mask made of insulation materials, with filter cartridges ABEK and prefilters of 5911 or 5925 series, aerosol respirators of 8112 series as per CU TR 019/2011. Self-contained breathing apparatus or air line respirator of ПШ-1, ПШ-2 type or equivalents. If necessary, an air supply system is to be used. [1,28,32]
8.3.3. Protective means (material, type): (working clothes, special footwear, hand protection, eye protection):	Protective suit against general pollution as per CU TR 019/2011, overall isolating from chemical factors as per CU TR 019/2011, special clothes of Тнв type, aprons as per GOST 12.4.103. Closed protective footwear, leather boots as per GOST 12.4.137, GOST 28507, CU TR 019/2011. Safety glasses with a side guard of closed type as per CU TR 019/2011. Protective gloves against cold as per GOST EN 511, gloves against contact with chilled surfaces of Тхп type, against low air temperatures Тн. For protection of workers' skin against agents and for dermatophylaxis, hydrophilic filming protective ointments, pastes, skin oiling creams are very effective. [1,17,28-33,35-38]
8.3.4. Personal protective equipment in household use:	It is not used in the household. [1]

9. Physical and chemical properties

9.1. Physical state: (aggregative state, colour, odour)	Low-boiling fluid, colourless, odourless. [1,2,11,21]
9.2. Parameters characterizing the product basic properties, first of all hazardous: (temperature parameters, pH, solubility, coefficient n-octanol/water and other)	Density of liquid argon at normal pressure, 1,392 kg/dm^3. [1] Boiling point: -185,85 °C. [1-3,11,23] Melting point: -189,4 °C. [1-3,11,23] Solubility in water, ml/100 ml at 20 °C: 3. [2,3,11]

10. Stability and reactivity

10.1. Chemical stability: (for unstable products specify decomposition products)	The product is stable if stored, operated, transported and used properly. [1- 3,11]
10.2. Reactivity:	Low chemical activity. [1,2,11]
10.3. Conditions to avoid: (including those which may cause dangerous reactions upon contact with incompatible substances and materials)	Avoid heating of vessels filled with argon (quick pressure increase may lead to damage of vessels and their explosion), avoid contact with spilled product. [1,11,21]

11. Toxicological information

11.1. General description of effects: (assessment of a level of hazardous (toxic) effects on a human body and the most typical hazardous consequences)	As per GOST 12.1.007: Low-hazard product by effect on human body, hazard class – 4. May cause frostbite of skin and ocular mucous membrane. In an argon-enriched atmosphere, a state of oxygen deficiency and suffocation can

	occur. [1,2,5,11,21]
11.2. Routes of exposure (inhalation, ingestion, skin and eye contact)	When inhaled, skin and eye contact. [1,2,11]
11.3. Affected human organs, tissues and systems:	Central and peripheral nervous systems; skin and eyes (when working with liquid argon). [1,2,11]
11.4. Information on dangerous to health effects from direct exposure to the product, as well as consequences of this exposure: (irritation of upper airways, eyes, skin, including skin resorptive and sensitizing effects)	May cause frostbite of skin and ocular mucous membrane. In an argon-enriched atmosphere, hypoxia (oxygen deficiency) occurs, leading to asphyxia (suffocation), loss of consciousness and death. [1,3,11,21] Skin resorptive and sensitizing effect not found. [1,2,11]
11.5. Information on long-term dangerous to health effects from exposure to the product (influence on reproduction function, carcinogenicity, mutagenicity, cumulative and other long-lasting effects)	Cumulativity is weak. Carcinogenic effect: for humans - not studied, for animals - it has carcinogenic effect. Dangerous consequences of exposure on human body: mutagenic, embryotropic, gonadotropic and teratogenic effects were not studied. [2,3,11]
11.6. Values of acute toxicity: (DL_{50} (LD_{50}), route of receipt (injected into stomach, external contact), type of an animal; CL_{50} (LC_{50}), exposure time (h), type of animal)	Data about acute toxicity of DL_{50} and CL_{50} is absent. [1,2,3,11]

12. Ecological information.

12.1. General description of effects on environment: (air, water, soil, including observable signs of exposure)	May pollute the environment. A dramatic increase of argon content in the atmosphere during unauthorized leaks can change the composition of the atmospheric air and reduce the oxygen content. [2,3,11]
12.2. Environmental impact routes:	In case of violation of the rules for handling, storage, transportation, unorganized disposal of waste, as a result of emergencies and accidents. [1-3,11,21]
12.3 The most important characteristics of impact on environment	
12.3.1 Hygienic regulations: (allowable concentrations in atmospheric air , water, incl. fishponds, soil)	Hygienic regulations for products in environmental objects were not established. [1,2,11,13,26]
12.3.2.Ecotoxicity values (CL, EC, for fish, daphnia magna, algae, etc.)	Data about acute toxicity values is absent. [11]
12.3.3 Migration and transformation in the environment due to biodegradation and other processes (oxidation, hydrolysis or similar)	Does not transform in the environment. [1,11]

13. Waste (remains) disposal recommendations.

13.1. Safety measures for handling of waste generated as a result of use, storage, transportation:	Comply with the requirements of fire, industrial, environmental, toxicological safety, labor protection instructions. Minimize the generation and accumulation of waste. Safety measures in case of argon leakage are similar to those used when working with the main products (see sections 5,6,7, 8

	of the SDS). [1,11,14,21,22]
13.2. Information on locations and methods of neutralization, utilization or disposal of waste, including containers (packing):	Argon (liquid), getting into the atmosphere, completely evaporates without forming waste. Vessels and tanks for liquid argon are used repeatedly. Empty containers are disposed of by the consumer or returned to the manufacturer (supplier). Before reuse, the container must be free of product and dried in a well-ventilated place or outside. Each vessel and tank must undergo periodic surveys; unsuitable containers must be disposed of. Disposal should be carried out in specialized organizations that have the appropriate license. [1,3,11,14,21]
13.3. Recommendations on removal of waste formed in household use:	Liquid argon is not intended for household use. [1]

14. Transport information

14.1. UN number: (according to UN recommendations on hazardous goods transportation)	1951. [1,18,19,21]
14.2. Proper shipping name and name while in shipment	Proper Shipping name: LIQUID COOLED ARGON. [21] Name in shipment: Liquid argon, top grade, first grade.
14.3. Modes of transport used	The product is transported by all modes of transport, in accordance with the Rules for the carriage of goods applicable for this type of transport. [1,11,32]
14.4. Cargo hazard classification according to GOST 19433-88:	
— class:	2. [1,7]
— subclass:	2.1 [1,7]
— classification code (according to GOST 19433-88 and for railway transportation)	According to GOST 19433 – 2115; for railway transportation – 2213 [1,7,21]
— hazard pictogram(s) drawing(s) number(s)	2. [1,7]
14.5 Hazardous goods classification according to UN Recommendations on hazardous goods transportation:	
— class or subclass:	2.2. [1,7,21]
— extra hazard:	None. [1,7]
— UN packing group:	None. [1,7]
14.6 Transport marking: (handling signs according to GOST 14192)	«Keep away from sunlight». [1,8]
14.7. Emergency cards: (rail-, sea- and others types of transport)	Emergency card number is № 201 – for railway transportation. There are no emergency cards for transportation by road and river transport. Emergency cards F-C, S-V – for sea transport. [1,18,19,21,39]

15. National and international legislation information

15.1. National legislation	

15.1.1. Russian Federation laws:	On Protection of Atmospheric Air, On Sanitary and Epidemiological Well-Being of Population, On Environmental Protection, On fire safety protection, On Technical Regulation, On Production and Consumption Wastes. On industrial safety of hazardous production facilities. Unified sanitary, epidemiological, and hygienic requirements in the customs union.
15.1.2. Documentation regulating man safety and environmental protection requirements:	The product is not subject to mandatory certification.
15.2 International conventions and agreements: (whether the product is regulated by Montreal Protocol, Stockholm Convention and others)	Not regulated. By Montreal Protocol and Stockholm Convention. [11]

16. Additional information

16.1. Information on SDS revision (re-edition): (the following is specified: "SDS is drawn up for the first time" or "SDS is re-registered upon expiry. Previous SDS registration number..." or "Amendments made in clauses…, amendment date…")	SDS is drawn up for the first time.

16.2. The list of information sources used to draw up the safety data sheet

1. GOST 10157-2016. Gaseous and liquid argon. Specifications.
2. Information card of potentially hazardous chemical and biological substance. Argon. State Registration Certificate AT-000322 dated 27.02.1995. Amended on 05.10.2021.
3. Harmful chemical substances. Non-organic compounds of V-VII group elements, as worded by V.A. Filova, L., 1989.
4. GOST 12.1.005-88. Occupational Safety Standard Systems. General sanitary requirements for working zone air.
5. GOST 12.1.007-76. Occupational Safety Standard Systems. Noxious substances. Classification and general safety requirements.
6. GOST 12.3.009-76. Occupational Safety Standard Systems. Loading and unloading works. General safety requirements.
7. GOST 19433-88. Dangerous cargoes. Classification and marking.
8. GOST 14192-96. Marking of cargoes. M., Izdatelstvo standartov, 1996.
9. GOST 31340-2013. Chemical products warning marking. General requirements.
10. Harmful substances in industry. Reference book for chemists, engineers and doctors. N.V. Lazarev, E.N. Levina, L., "Chemistry", 1977.
11. ECHA (European Chemicals Agency) information system data. [Electronic source]: Access mode: http://echa.europa.eu/; PubChem [Electronic source]: Access mode: https://pubchem.ncbi.nlm.nih.gov/; Information system on hazardous substances of the German Social Accident Insurance - GESTIS Substance Database [Electronic source]: Access mode: https://gestis-database.dguv.de/search.
12. Sanitary Regulations 2.2.3670-20. Sanitary-epidemiological requirements for working conditions.
13. SanPiN 1.2.3685-21. Hygienic standards and requirements for safety and (or) harmlessness of environmental factors for humans approved by the Decree of the Public Health Officer of Russia No. 2 dated 28.01.2021.
14. SanPiN 2.1.3684-21. Sanitary-epidemiological requirements for maintenance of areas of urban and rural settlements, for water bodies, drinking water and drinking water supply, atmospheric air, soils, private premises, for operation of production and public premises, for planning and execution of public health and epidemic control (preventive) measures approved by the Decree of the Public Health Officer of Russia No. 3 dated 28.01.2021.

15. The unified list of products (goods) subject to state sanitary and epidemiological supervision (control) at the customs border and customs territory of the Eurasian Economic Union approved by the Decision No. 299 dated 28.05.2010 of the Customs Union Commission (as amended on 29th October, 2021).
16. Decree of the Government of Russia No. 563 dated 08.05.1996 “Control of import of ozone depleting substances and products containing them to Russia and of their export from Russia”.
17. Decree No. 25 dated 22nd July, 1999 of Ministry of Labour “On approval of typical trade standards for free issue of special clothes, shoes and other individual protection means to chemical workers”.
18. Decree of the Government of Russia No. 2200 dated 21.12.2020 “On approval of road transportation rules and on amendment to clause 2.1.1 of Traffic Rules of Russia” (as amended on 30th November, 2021).
19. Regulations concerning the International Carriage of Dangerous Goods by Rail, brought into force at the 15th meeting of CIS Council on Railway Transport, MoM No. 15 dated 05.04.1996 (as amended on 27th November, 2020)
20. Decree of the Government of Russia No. 1479 dated 16.09.2020 (as amended on 21.05.2021). “On approval of Fire Prevention Rules inside Russia”.
21. Transport Emergency cards N 48 dated 30th May, 2008 for goods transported by railways of CIS, the Republic of Latvia, the Republic of Lithuania, the Republic of Estonia.
22. Technical Regulation “On fire safety requirements” N 123-ФЗ dated 22.07.2008.
23. Fire and explosion hazard of substances and materials and their extinguishing means: Reference Book: two volumes / A. N. Baratov, A. Ya. Korolchenko, G. N. Kravchuk, etc.
24. GOST 32419-2013. Classification of chemicals. General requirements.
25. Recommendations on the Transport of Dangerous Goods. Model regulations. 21st revised edition.
26. Decree of Ministry of Agriculture of Russia N 552 dated 13th December, 2016 “On approval of water quality standards for fishery water bodies including norms of maximum acceptable concentrations of hazardous substances in the waters of fishery water bodies”.
27. GOST 12.1.004-91. Occupational Safety Standard Systems. Fire Safety. General requirements.
28. CU TR 019/2011. Technical Regulations of the Customs Union “On safety of individual protective means” dated 09.12.2011.
29. GOST 12.4.131-83. Women’s overalls. Technical specifications.
30. GOST 12.4.280-2014. Occupational Safety Standards System. Special clothing for mechanical action protection and general industrial contamination protection. General technical requirements.
31. GOST 12.4.253-2013. Occupational Safety Standards System. Personal eyes protection means. General technical requirements.
32. GOST 26460-85. Air separation products. Gases. Cryogens. Packing, marking, transportation and storage.
33. GOST EN 511-2012. Occupational Safety Standards System. Personal protective means of hands. Protective gloves against cold. General technical requirements. Test methods.
34. Order of Russian Ministry of Public Health dated 28.01.2021 N 29н “On approval of the Procedure for carrying out compulsory preliminary and periodic medical examinations of employees stipulated in the fourth part of article 213 of the Labour Code of the Russian Federation, list of medical contradictions for carrying out activities with harmful and (or) hazardous production factors, and also activities requiring compulsory preliminary and periodic medical examinations”.
35. GOST 28507-99. Special leather footwear for protection from mechanical action. Specification.
36. GOST 12.4.252-2013. Occupational Safety Standards System. Personal protective means of hands. Gloves. General technical requirements. Test methods.
37. GOST R 12.4.301-2018. Occupational Safety Standards System. Dermatological personal protective products. General specifications.

38. GOST 12.4.103-83 Occupational Safety Standards System. Special protective clothes, personal means of hands and legs protection. Classification
39. Carriage of dangerous goods. International Maritime Dangerous goods (IMDGC) dated 17 July, 2002.