SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

automatic transmission fluid (ATF)
Article number: 177652, 194427

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant uses

Lubricant

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Ferdinand Bilstein GmbH + Co. KG
Wilhelmstr. 47
58256 Ennepetal / GERMANY
Phone +49 2333 911-0
Fax +49 2333 911-444
Homepage www.febi.com
E-mail info@febi.com

Address enquiries to

Technical information info@febi.com

Safety Data Sheet info@febi.com

1.4 Emergency telephone number

Advisory body +49 (0)89-19240 (24h) (English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Sens. 1: H317 May cause an allergic skin reaction.

2.2 Label elements

The product is classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200 (HCS 2024)

Hazard pictograms

Signal word WARNING

Contains: 4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7

Hazard statements H317 May cause an allergic skin reaction.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P261 Avoid breathing mist/vapours/spray.
P280 Wear protective gloves/protective clothing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

2.3 Other hazards

Physico-chemical hazards No particular hazards known.

Human health dangers Frequent persistent contact with the skin can cause skin irritation.
Contains no ingredients with endocrine-disrupting properties (≥ 0,1%).

Environmental hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other hazards Further hazards were not determined with the current level of knowledge.

This product is classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200.

SECTION 3: Composition / Information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
50 - < 100	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based
	CAS: 72623-87-1
1 - < 5	Bis(nonylphenyl)amine
	CAS: 36878-20-3
1 - < 5	Phenol derivates
0,1 - < 1	4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat
	CAS: 93882-40-7
0,01 - < 0,25	Alkyl thiophosphites

Comment on component parts

For full text of H-statements and R-phrases: see SECTION 16.
Mixture containing mineral oil. Mineral oil with <3% DMSO extract according to IP 346.
All chemical substances in this material are included on or exempted from listing on the IECSC Inventory.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Change soaked clothing.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion

Consult a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

If swallowed or in the event of vomiting, risk of product entering the lungs.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to the doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam, dry powder, water spray jet, carbon dioxide

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)
Sulphur oxides (SOx).
Nitrogen oxides (NOx).
Hydrogen sulfide ((H2S).

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

High risk of slipping due to leakage/spillage of product.
Forms slippery surfaces with water.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. general-purpose binder).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid formation of aerosols.
The normal safety precautions for handling chemicals must be observed.

Do not smoke.

Wash hands before breaks and after work.
Do not eat, drink or smoke when using this product.
Use barrier skin cream.
Take off contaminated clothing and wash before reuse.
Cloths contaminated with product should not be kept in trouser pockets.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.

Do not store together with oxidizing agents.
Do not store together with food and animal food/diet.

Keep container tightly closed.
Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (US)

Substance
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based
CAS: 72623-87-1
Long-term exposure: 5 mg/m³, ACGIH, TWA, Oil mist

DNEL

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
Industrial, dermal, Long-term - systemic effects, 5 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 2,5 mg/kg bw/day
general population, oral, Long-term - systemic effects, 0,25 mg/kg bw/day
Alkyl thiophosphites
Industrial, inhalative, Long-term - systemic effects, 1,76 mg/m³
Industrial, dermal, Long-term - systemic effects, 0,5 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 0,43 mg/m³
general population, dermal, Long-term - systemic effects, 0,25 mg/kg bw/day
general population, oral, Long-term - systemic effects, 0,25 mg/kg bw/day
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
Industrial, inhalative, Long-term - systemic effects, 2.73 mg/m³
Industrial, inhalative, Long-term - local effects, 5.58 mg/m³
Industrial, dermal, Long-term - systemic effects, 970 µg/kg bw/day
general population, oral, Long-term - systemic effects, 0.74mg/kg bw/day
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
Industrial, inhalative, Long-term - systemic effects, 3.526 mg/m³ (AF= 75)
Industrial, dermal, Long-term - systemic effects, 2 mg/kg bw/d (AF= 300)
general population, oral, Long-term - systemic effects, 0.5mg/kg bw/day

PNEC

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
freshwater, 412 µg/L
seawater, 41.2 µg/L
sediment (freshwater), 1 mg/kg sediment dw
sediment (seawater), 0.1 mg/kg sediment dw
Alkyl thiophosphites
freshwater, 900 ng/l
seawater, 90 ng/l
sewage treatment plants (STP), 54 mg/l
sediment (freshwater), 0,073 mg/kg
sediment (seawater), 0,007 mg/kg
soil, 0,015 mg/kg
oral (food), 10 mg/kg
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
oral (food), 9.33 mg/kg food
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
freshwater, 0.009 mg/L (AF= 1000)
seawater, 0.001 mg/L (AF= 10 000)
sewage treatment plants (STP), 100 mg/L (AF= 10)
sediment (freshwater), 542 229.75 mg/kg dw
sediment (seawater), 54 222.98 mg/kg dw
soil, 259 870.48 mg/kg dw

	oral (food), 20 mg/kg food (AF=300)

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances. General limit for oil mist should be noted.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. Nitrile butyl rubber (NBR) > 0,38 mm:, (EN 374-1/-2/-3).
Skin protection	Light protective clothing.
Other	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Avoid contact with eyes and skin.
Respiratory protection	Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, combination filter A-P1. (DIN EN 14387)
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Form	Liquid
Color	blue-green
Odor	characteristic
Odor threshold	No information available.
pH-value	Not applicable
pH-value [1%]	No information available.
Boiling point or initial boiling point and boiling range [°C]	No information available.
Flash point [°C]	214 (417°F)
Flammability	Not highly flammable.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidizing properties	No
Vapor pressure/gas pressure [kPa]	No information available.
Density [g/cm³]	0.84 (15 °C / 59,0 °F)
Relative density	Not determined
Bulk density [kg/m³]	Not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Kinematic viscosity	25 mm²/s (40°C)
Relative vapour density	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	Not applicable

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

10.4 Conditions to avoid

No special measures necessary.

10.5 Incompatible materials

Oxidizing agent
Acids
Strong basic compounds

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Product
oral, Based on the information available, the classification criteria have not been fulfilled.

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
LD50, oral, Rat, 5000 mg/kg bw
Alkyl thiophosphites
LD50, oral, Rat, > 2000 mg/kg
NOAEL, oral, Rat, 50 - 150 mg/kg bw/day
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
LD50, oral, Rat, > 5000 mg/kg bw
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
LD50, oral, Rat, > 10 000 mg/kg bw

Acute dermal toxicity

Product
ATE-mix, dermal, > 2000 - 5000 mg/kg

Substance
Alkyl thiophosphites
LD50, dermal, Rabbit, > 500 mg/kg
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
LD50, dermal, Rabbit, 2000 - 5000 mg/kg bw
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
LD50, dermal, Rat, > 3160 mg/kg

Acute inhalational toxicity

Product
inhalative, Based on the information available, the classification criteria have not been fulfilled.

Substance
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
LC50, inhalative, Rat, > 5 mg/L, 4h

Serious eye damage/irritation Based on the information available, the classification criteria have not been fulfilled.

Substance
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
Eye, non-irritating
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
Eye, irritant

Skin corrosion/irritation Based on the information available, the classification criteria have not been fulfilled.

Substance
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
dermal, non-irritating

Respiratory or skin sensitisation May cause an allergic skin reaction.
Based on the information available, the classification criteria have been fulfilled.
Calculation method

Substance

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
dermal, non-sensitizing
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
dermal, sensitising

Specific target organ toxicity — single exposure
Does not contain any relevant substances fulfilling the classification criteria.
Based on the information available, the classification criteria have not been fulfilled.

Specific target organ toxicity — repeated exposure
Does not contain any relevant substances fulfilling the classification criteria.
Based on the information available, the classification criteria have not been fulfilled.

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
NOEL, oral, Rat, 100 mg/kg bw/day
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
NOAEC, inhalative, Rat, 980 mg/m³ air
LOAEL, oral, Rat, 125 mg/kg bw/day
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
NOAEL, oral, Rat, 300 mg/kg bw/day

Mutagenicity
Does not contain any relevant substances fulfilling the classification criteria.
Based on the information available, the classification criteria have not been fulfilled.

Substance
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
in vitro, negativ
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
in vitro, negativ

Reproduction toxicity
Does not contain any relevant substances fulfilling the classification criteria.
Based on the information available, the classification criteria have not been fulfilled.

- Fertility

Substance
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
NOAEL, oral, Rat, 1000 mg/kg bw/day
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
NOAEL, oral, Rat, 450 mg/kg bw/day

- Development

Substance
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
NOAEL, oral, Rat, 450 mg/kg bw/day

Carcinogenicity
Does not contain any relevant substances fulfilling the classification criteria.
Based on the information available, the classification criteria have not been fulfilled.

Aspiration hazard
Based on the information available, the classification criteria have not been fulfilled.

General remarks

Toxicological data of complete product are not available.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Bis(nonylphenyl)amine, CAS: 36878-20-3
EC50, (48h), Invertebrates, 100 mg/L
EL50, (72h), Algae, 100 mg/L
NOELR, (21d), Invertebrates, 4.45 mg/L
NOELR, (33d), Fish, 10 mg/L
Alkyl thiophosphites
EL50, (48h), Daphnia magna, 0,09 mg/l
EL50, (72h), Selenastrum capricornutum, 0,31 mg/l
LL50, (24h), Oncorhynchus mykiss, 2 mg/l
LL50, (21d), Daphnia magna, 0,22 mg/l
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
EL50, (48h), Invertebrates, > 10000 mg/L
LL50, (4d), Fish, > 100 mg/L
4,4'-Thiodiethylen hydrogen-2-octadecenylsuccinat, CAS: 93882-40-7
LC50, (96h), Fish, > 100 mg/l (OECD 203)
EL50, (48h), Daphnia magna, 9,5 mg/l (OECD 202)
NOEC, (72h), Algae, > 100 mg/l (OECD 201)

12.2 Persistence and degradability

Behaviour in environment compartments Not determined

Behaviour in sewage plant Can be separated out mechanically in purification plants.

Biological degradability The product is not readily biodegradable.

Substance
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, CAS: 72623-87-1
(28d), 1 - 4 %, OECD 301 B, The product is not readily biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Coordinate disposal with the authorities if necessary.
Disposal in an incineration plant in accordance with the regulations of the local authorities.
In according to RoHS!

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

RCRA Hazard Class (40CFR 261)

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities.

SECTION 14: Transport

14.1 UN number

Transport by land according to ADR/RID	Not applicable
Inland navigation (ADN)	Not applicable
Marine transport in accordance with IMDG	Not applicable
Air transport in accordance with IATA	Not applicable
DOT Road Shipment Information (49 CFR)	Not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID	NO DANGEROUS GOODS
Inland navigation (ADN)	NO DANGEROUS GOODS
Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"
DOT Road Shipment Information (49 CFR)	Not applicable

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	Not applicable
Inland navigation (ADN)	Not applicable
Marine transport in accordance with IMDG	Not applicable
Air transport in accordance with IATA	Not applicable
DOT Road Shipment Information (49 CFR)	Not applicable

14.4 Packing group

Transport by land according to ADR/RID	Not applicable
Inland navigation (ADN)	Not applicable
Marine transport in accordance with IMDG	Not applicable
Air transport in accordance with IATA	Not applicable
DOT Road Shipment Information (49 CFR)	Not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	No
Inland navigation (ADN)	No
Marine transport in accordance with IMDG	No
Air transport in accordance with IATA	No
DOT Road Shipment Information (49 CFR)	No

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US Regulations

National regulations	29 CFR 1910.1200-HCS 2012, OSHA-PEL, ACGIH-TLV, NTP, IARC, SARA Title III, NFPA, TSCA, California - Prop. 65
- SARA, 302	This product does not contain any ingredients regulated under this list.
- SARA, 311	This product does not contain any ingredients regulated under this list.
- SARA, 313	This product does not contain any ingredients regulated under this list.
- CA Proposition 65	No chemical substances in this material are named on the California P65 list.
- TSCA	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.
- FDA	No information available.
American Conference of Governmental Industrial Hygienists - ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcino-gen by ACGIH.
International Agency for Research on Cancer IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
National Toxicology Program - NTP	Ingredients not listed.
HAP-VOC	No information available.
Transport-regulations	DOT-Classification, ADR (2025); IMDG-Code (2025, 42. Amdt.); IATA-DGR (2025)

15.2 Chemical safety assessment

Not applicable

SECTION 16: Other information

16.1 Abbreviations and acronyms:

ACGIH = American Conference of Governmental Industrial Hygienists;
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route;
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses;
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure;
CAS = Chemical Abstracts Service;
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act;
CFR = Code of Federal Regulations;
CPR = Controlled Products Regulations;
DMEL = Derived Minimum Effect Level;
DNEL = Derived No Effect Level;
DOT = Department of Transportation;
EC50 = Median effective concentration;
EPA = Environmental Protection Agency;
GHS = Globally Harmonized System of Classification and Labelling of Chemicals;
IATA = International Air Transport Association;
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
IC50 = Inhibition concentration, 50%;
IMDG = International Maritime Code for Dangerous Goods;
IARC = International Agency of Research on Cancer;
IATA = International Air Transport Association;
TSCA = Toxic Substance Control Act;
HMIS = Hazardous Materials Identification System;
NFPA = National Fire Protection Association;
NIOSH = National Institute for Occupational Safety and Health;
OSHA = Occupational Safety and Health Administration;
LC50 = Lethal concentration, 50%;
LD50 = Median lethal dose, 50%;
MARPOL = International Convention for the Prevention of Marine Pollution from Ships;
PBT = Persistent, Bioaccumulative and Toxic substance;
PNEC = Predicted No-Effect Concentration;
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals;
SARA = Superfund Amendments and Reauthorization Act;
TLV®/TWA = Threshold limit value – time-weighted average;
TLV®STEL = Threshold limit value – short-time exposure limit;
VOC = Volatile Organic Compounds;
vPvB = very Persistent and very Bioaccumulative;

16.2 Ratings

NFPA Ratings

TOP, FLAMMABILITY: 1 - Slight Hazard
LEFT, HEALTH: 2 - Moderate Hazard
RIGHT, REACTIVITY: 1 - Slight Hazard
BOTTOM, SPECIAL NOTICE: -

HMIS Ratings

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X

2 - Moderate Hazard
1 - Slight Hazard
1 - Slight Hazard
X - Personal protection rating to be supplied by user depending on use conditions

PERSONAL PROTECTION:

A - Safety Glasses
B - Safety Glasses and Gloves
C - Safety Glasses, Gloves and Protection Apron
D - Face Shield, Gloves and Protection Apron
E - Safety Glasses, Gloves and Dust Respirator
F - Safety Glasses, Gloves, Protection Apron and Dust Respirator
G - Safety Glasses, Gloves and Vapor Respirator.
H - Splash Goggles, Gloves, Protection Apron and Vapor Respirator.
I - Safety Glasses, Gloves, Dust Respirator and Vapor Respirator.
J - Splash Goggles, Gloves, Protection Apron, Dust Respirator and Vapor Respirator.
K - Airline Mask or Hood, Gloves, Full Suit and Boots.
X - Personal protection rating to be supplied by user depending on use conditions

Modified position 1.3, 2.3, 3.2, 8.1, 9.1, 11.1, 11.2, 12.6, 12.7, 15.1, 16.2, 16.3