Antriebssysteme

EC safety data sheet
Type 125 & Type 475
(Translation from the German original)

Contents

Index of changes

Date	Name	Description
24.06.24	Wes	Adress changed

1. Substande- / preparation- and company indentification

Identification of the substance or preparation

Product name: elektronically controlled lubrication system Typ 125 and Typ 475

Application: The solid-state control lubricant dispensers (tins) are pressure pres ses for the automatic lubrication (of for example bearings and other machine parts that have to be constantly lubricated). The pressure for the pressure press is built up electronically by a dosed and be forehand via an electrical circuit chosen electrolysis of a solution of different chemicals (see below) in the nitrogen chamber, developing nitrogen that displaces the lubricant with the help of a piston. The current supply is accomplished by 2 dry batteries with 1.5 V. A so phisticated electronics allows a pre-selection of different setting times according to lubricant requirements possible. The battery chamber is explosion-proof. The manual contains further information about the application and setting possibilities.

Identification of the supplier:

Company:
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2. Possible dangers

General: Intact, closed container
no special precautions required

Serious damage can pose the following risks:

Health: Very toxic if swallowed.
Develops upon contact with acid very poisonous gases.
Irritating to eyes, respiratory system and skin.
Can cause allergic reactions.

Fire and explosion: Risk of fire in contact with combustible material.

Environment: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Constituents of the chemical and physical drive unit

Components	CAS No.	EG-index no.	(subst. weight) wt %	Critical value for the industrial safety [TLV]	Information about the toxicology	Critical value for the industrial safety [TLV]	r-sets s-sets
Dimethyl sulphoxide (DMSO)	67-68-5	no hazardous product i.t. sense o. regulation 67/548/EWG	13	danger of skin resorption	LD50 (orally, rat), 14500 mg/kg	-	24/25 --/--
Sodium azide	26628-22-8	011-004-00-7	15	0.2 mg/m³	LD50 (orally, rat), 27 mg/kg	T+ very poisonous	28-32 28-45
potassium iodide	7681-11-0	no hazardous product i.t. sense o. regulation 67/548/EWG	6	--	not known	--	--/-- --/--
Potassium thiocyanate	333-20-0	615-004-00-3	6	hazardous to health	hazardous to health	Xn hazardous to health	20/21/22-32 13
Ethylene glycol	107-21-1	603-027-00-1	3	26 mg/m³ danger of skin resorption	LD50 (orally, Rat) 4700 mg/kg	Xn hazardous to health	22 --/--
Water			57				

Important!
A drive cartridge of the lubricant dispenser contains on the whole approx. 10g for ALS 125 and approx. 15g for ALS 475 of the abovementioned solution, hermetically enclosed by a polypropylene hide and absorbed in a solid sponge. In the event of puncture or wanton only up to about 2 g for ALS 125 and for 4g for ALS 475 and of liquid leak from the unit!

4. First aid measures

Exposure: A drive cartridge of the lubricant dispenser contains on the whole approx. 15 g of the abovementioned solution, hermetically enclosed by a polypropylene hide and absorbed in a solid sponge. In the event of puncture or wanton only up to about 2 ml of liquid leak from the unit. Only if this is the case, the following exposition hazards can occur:

Eye contact: irritation, redness

Skin contact: irritation
absorption through the skin by continuous contact causes azide poisoning which leads progressively to headache, dizziness, nausea and eventually collapse

Inhalation: vapours or mist may irritate the respiratory tract
continuous inhalation of weak vapours over several hours may lead to mild symptoms of azide poisoning
inhalation of vapours lead to severe poisoning symptoms when swallowed.

Carcinogenicity:	not present
Mutagenicity:	probably mutagenic
Eye contact:	irrigate with water for at least 15 minutes contact eye specialist
Skin contact:	wash affected parts thoroughly with water remove contaminaed clothing consult a doctor with longer skin contact
Inhalation:	take to open air immediately
Swallowing:	wash mouth thoroughly with water give plenty of water to drink bring about vomiting

5. Fire and explosion hazard

Flammability:	not flammable
Flash point:	-
Auto-ignition temperature:	-
Extinguishing media:	-

In the event of fire that is sustained by external sources wear full breathing protection and protective clothing.

Sensitivity to impact:	none
Sensitivity to static:	none
Charge:	none
Flammability:	not explosive

Above 60°C, nitrogen slowly develops. Above 150°C, rapid decomposition, which also gives rise to toxic fumes.

Forms explosive compounds with heavy metals and their salts (for example lead, silver, copper, mercury). Explosive decomposition with hypochlorites.

Suitable extinguishing media:	carbon dioxide, powder, foam, water sprinkling or water mist.

Fire extinguishing procedure: If possible without risk, remove containers from the fire zone. Cool fire-exposed containers with water. If possible, fight fire from a protected location.

Explosion hazard: not explosive

Personal protective equipment in case of fire:

General, evacuate all employees, wear protective equipment when fighting fires.
Use a portable respiratory protective device if the product comes into contact with fire.

6. Accidental release measures / leakages

If the lubricant dispenser is handled duly and as directed, there originate no dangers whatsoever from the constituents of the drive unit for the electro-pneumatic pressure generation, because the dispenser is situated hermetically-welded in a gas and liquid-tight, strong polypropylene hide which is itself enclosed in a strong plastic housing.

Only in the case of unintended damaging or malicious opening, a maximum of 2 ml of the liquid can leak, because all the liquid is absorbed in a sponge. If such a case occurs, proceed as follows:

Absorbing/cleaning: wear appropriate personal protective gear (protective gloves, preferably of butyl rubber, and protective glasses) absorb liquid in porous medium (e.g. vermiculite, a sheet silicate or dry sand) do not use metal containers or metal tools for absorption! clean with a mild alkali solution, e.g. sodium bicarbonate

Disposal: dispose of contaminated absorption materials, e.g. as appliances or absorption masses contaminated with chemicals ask the authorized person for disposal matters in your company! If mist occurs, it is recommended to use a dust filter and to ventilate properly.

7. Storage / handling

Store the ATLANTA lubricant tins in a storeroom with a room temperature below 40°C. Do not store the units together with acids and heavy metal salts to avoid hazardous reactions in case of unintentional damage or leakages!

8. Exposure controls and personal protective equipment

Exposure:	In a drive cartridge of the lubricator, in a hermetically sealed polypropylene bellows, a total of 10 grams of the above solution are dispersed in a plastic sponge. In case of perforation or willful destruction of this unit, only a maximum of about 1 ml of fluid can escape. Only in this case can the following exposure hazards arise:
Eye contact:	irritation, redness
Skin contact:	irritation; a recording through the skin during permanent contact causes an azide poisoning, which is increasingly in Headache, dizziness, vomiting and finally expresses circulatory collapse.
Inhalation:	Vapors or mist may irritate the respiratory tract; Continuous inhalation of weak vapors several hours can lead to mild symptoms Lead to azide poisoning. Inhalation of nebulas is the same as swallowing more serious symptoms of intoxication.
Carcinogenicity:	not available
Mutagenicity:	brobably mutagenic
Respiratory protection:	Intact, closed container: Respiratory protection is usually not required.
Eye protection:	Wear safety goggles approved in case of danger of splashing.
Protective gloves:	protective gloves (butyl rubber).
Protective clothing:	Wear suitable protective clothing.

9. Physical and chemical properties

Chemical characterization:

Appearance, smell:	clear, colourless, watery liquid with a faint, indistinct sulphur smell
Boiling point:	104ºC
Vapour pressure:	15 mm Hg at 20ºC
Mass gravity:	1,14
% volatile:	80 vol%
Vapour density:	approx. 1 (like air)
PH:	9

Solubility in water:	infinite
Evaporation rate:	as for water

10. Reactivity / stability

Stability under normal circumstances:	stable
Conditions to avoid:	temperatures above 100°C contamination inside the nitrogen chamber with heavy metals and their salts contact of the nitrogen chamber filling with chlorine and hypochlorites contact of the nitrogen chamber filling with acids
Hazardous decomposition products:	oxidative decomposition above about 150°C gives sulphur dioxide, nitrogen oxide, formaldehyde, methyl mercaptan, hydrogen cyanide, hydrogen iodide, sodi um oxide and potassium oxide contact with the acid leads to the development of insta ble hydrogen azide and instable thiocyanate acid and/ or isothiocyanate acid
Hazardous polymerisation:	none
Relevant R-phrases:	T+: highly toxic; R 28: Very toxic if swallowed; R 32: Contact with acids liberates very toxic gas N: Dangerous for the environment R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

11. Toxicology

Intact, closed (plastic) container

12. Ecology

Mobility:	Closed container
Conclusion:	Must not enter the sewage system or waters.
Other information:	Water hazard class (WGK): 2 Water contaminants.

13. Disposal of the used cartridges

Parts like the circuit board, the cylinder housing and the lid of the used lubricant dispenser are reusable. The battery nitrogen chamber as the drive unit has to be installed anew.

Dispose of the dry batteries, the printed wiring board with the micro-switch, the housing and the drive unit in accordance with the person responsible for the waste disposal, the waste disposal company and/or the local waste disposal authority.

Recommendations:
Dry batteries previous indication

German LAGA code LAGA indication
[LAGA=Federal working group waste disposal]
(35325) dry batteries (dry cells)

LAGA origin
manufacturing of batteries, distribution and application

LAGA waste disposal certificate
SAD (1), UTD (2)
[SAD=hazardous waste disposal site, UTD=underground disposal site]

Whole cartridge without battery previous indication

German LAGA code LAGA indication
(54209) solid appliances contaminated with grease and oil

LAGA origin
petrol stations, garages, commercial businesses

LAGA waste disposal certificate
SAV (1), HMV (2)
[SAV=hazardous waste combustion, HMV=domestic waste combustion plant]

Circuit board: electronic industry waste

14. Transport

Dangerous Goods: no

15. Legislation

Water hazard class: WGK 2 (hazardous to water)

16. Other informations

Product Service

This information is based on present level of our knowledge and serves to describe the product with regard to appropriate safety precautions in the workplace. Make no guarantee of the properties of the product described dar. In the case of the occurrence of unanticipated effects or properties of this product is the safety not a substitute for consultation of trained professionals.

Literature used:

N. Irving-Sax “Dangerous Properties of Industrial Materials”, Van Nostrand Reinhold Comp., New York

Safety data sheets of the individual substances from the catalogue of the company Merck, CD-Rom version of the safety data sheets for laboratory chemicals, version D-A-CH 1998/1

The information and notes on safety in this data sheet are provided in good faith and are based on the present level of knowledge

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