SAFETY DATA SHEET

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

1.1. Product identifier

Trade name
Zink-Alu Spray

Product no.
-

REACH registration number
Not applicable

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

Relevant identified uses of the substance or mixture
NA

Uses advised against
-
The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address
Pureno A/S
Rønnevangs Allé 8
3400 Hillerød
Denmark
Tlf.: +45 70 260 267

Contact person
Kenneth Christensen

E-mail
mail@pureno.dk

SDS date
2016-03-03

SDS Version
3.0

1.4. Emergency telephone number

Use your national or local emergency number
See section 4 “First aid measures”

SECTION 2: Hazards identification

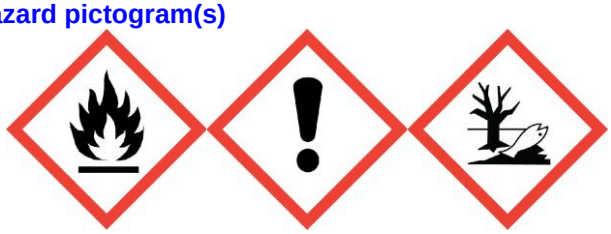
▼2.1. Classification of the substance or mixture

Aerosol 1; H229
Aerosol 1; H222
Skin Irrit. 2; H315
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)



▼Signal word
Danger

Hazard statement(s)

Pressurised container: May burst if heated. (H229)
Extremely flammable aerosol. (H222)
Causes skin irritation. (H315)
Very toxic to aquatic life with long lasting effects. (H410)

Safety statement(s)

General	If medical advice is needed, have product container or label at hand. (P101). Keep out ofreach ofchildren. (P102).
Prevention	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210).
Response	Collect spillage. (P391).
Storage	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122°F. (P410+P412).
Disposal	Dispose of contents/container to an approved waste disposal plant. (P501).

Identity of the substances primarily responsible for the major health hazards

-

2.3. Other hazards

This product contains an organic solvent. Repeated exposure to organic solvents can result in damage to the nervous system and inner organs, such as the liver and kidneys.

Additional labelling

-

Additional warnings

VOC

-

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

NAME:	propan-I-flydende-tilstand
IDENTIFICATION NOS.:	CAS-no: 74-98-6 EC-no: 200-827-9 Index-no: 601-003-00-5
CONTENT:	25-40%
CLP CLASSIFICATION:	Press. Gas H220

NAME:	zinc powder - zinc dust (pyrophoric)
IDENTIFICATION NOS.:	CAS-no: 7440-66-6 EC-no: 231-175-3 Index-no: 030-001-00-1
CONTENT:	25-40%
CLP CLASSIFICATION:	Flam. Sol. 1, Aquatic Acute 1, Aquatic Chronic 1 H228, H400, H410 (M-acute = 1) (M-chronic = 1)

NAME:	but-1-en
IDENTIFICATION NOS.:	CAS-no: 106-97-8 EC-no: 203-448-7 Index-no: 601-004-00-0
CONTENT:	15-25%
CLP CLASSIFICATION:	Flam. Gas 1 H220

NAME:	isobutan
IDENTIFICATION NOS.:	CAS-no: 75-28-5 EC-no: 200-857-2 Index-no: 601-004-00-0
CONTENT:	15-25%
CLP CLASSIFICATION:	Comp. Gas, Flam. Gas 1 H220, H280

NAME:	xylen, blanding af isomerer, kemisk rent
IDENTIFICATION NOS.:	CAS-no: 1330-20-7 EC-no: 215-535-7 Index-no: 601-022-00-9
CONTENT:	5-10%
CLP CLASSIFICATION:	Flam. Liq. 2, Acute Tox. 4, Skin Irrit. 2 H225, H312, H315, H332
NOTE:	S

NAME:	2-methylbutan
IDENTIFICATION NOS.:	CAS-no: 78-78-4 EC-no: 201-142-8 Index-no: 601-006-00-1
CONTENT:	3-5%
CLP CLASSIFICATION:	Flam. Liq. 1, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2 H224, H304, H336, H411, EUH066
NOTE:	S

(*) See full text of H-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available.

S = Organic solvent

Other informations

ATEmix(inhale, vapour) > 20
ATEmix(inhale, dust/mist) > 20
ATEmix(inhale, dust/mist) > 20000
ATEmix(dermal) > 2000
ATEmix(oral) > 2000
Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 0,56 - 0,84
N chronic (CAT 1) Sum = Sum(Ci/M(chronic)i*25) = 1,12 - 1,68
N acute (CAT 1) Sum = Sum(Ci/M(acute)i*25) = 1,12 - 1,68

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person's condition or if the symptoms continue. Never give an unconscious person water or similar.

Inhalation

Get the injured person into fresh air. Make sure there is always someone with the injured person. Prevent shock by keeping the injured person warm and calm. If the person stops breathing, give mouth-to-mouth resuscitation. If unconscious, roll the injured person onto side with the top leg bent at both knee and hip. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. If irritation continues, contact a doctor.

Ingestion

Give the person plenty to drink and stay with the person. If the person feels unwell, contact a doctor immediately and take this safety data sheet or the label from the product with you. Do not induce vomiting unless recommended by the doctor. Hold head facing down so that no vomit runs back into the mouth and throat.

Burns

Rinse with water until the pain stops and continue for 30 minutes.

▼4.2. Most important symptoms and effects, both acute and delayed

Neurotoxic effect: This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.
Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

4.3. Indication of any immediate medical attention and special treatment needed

No special

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, as in the case of fire, dangerous catabolic substances are produced. These are: Carbon oxides. Fire will result in thick black smoke. Exposure to catabolic products can damage your health. Fire fighters should use proper protection gear. Closed containers, which are exposed to fire, should be cooled with water. Do not let fire-extinguishing water run into sewers and other

water courses.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Stores that have not ignited must be cooled by water mist. Where possible, remove flammable materials. Make sure there is sufficient ventilation.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of a leakage to the surroundings, contact the local environmental authorities. Consider putting up waste collecting trays/basins to prevent leakage to the surroundings.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. Cleaning should be done as far as possible using normal cleaning agents. Solvents should be avoided.

6.4. Reference to other sections

See section on “Disposal” with regard to the handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Consider putting up waste collecting trays/basins to prevent leakage to the surroundings. See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original. Must be stored in a cool and ventilated area, away from possible sources of combustion.

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications described in Section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

No substances listed.

DNEL / PNEC

8.2. Exposure controls

No control is necessary if the product is used in a normal way.

General recommendations

Observe general occupational hygiene.

Exposure scenarios

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

Exposure limits

There are no maximum exposure limits for the substances contained in this product.

Appropriate technical measures

Take ordinary precautions when using the product. Avoid inhalation of gas or dust.

Hygiene measures

Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

Recommended: AX. Brown

Skin protection

Special work clothing should be used.

Hand protection

Recommended: Nitrile rubber. : NA

Eye protection

Use safety glasses with a side shield.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Colour	Odour	pH	Viscosity	Density (g/cm3)
Aerosol	Gray	Characteristic	-	-	-

Phase changes

Melting point (°C)	Boiling point (°C)	Vapour pressure (mm Hg)
-	-	-

Data on fire and explosion hazards

Flashpoint (°C)	Ignition (°C)	Self ignition (°C)
-25	-	-

Explosion limits (Vol %)	Oxidizing properties
-	-

Solubility

Solubility in water	n-octanol/water coefficient
Insoluble	-

9.2. Other information

Solubility in fat	Additional information
-	N/A

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section on “Handling and storage”.

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

Avoid static electricity.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reductants agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Substance	Species	Test	Route of exposure	Result

No data available.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

No data available.

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Long term effects

Neurotoxic effect: This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.
Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

SECTION 12: Ecological information

12.1. Toxicity

Substance	Species	Test	Test duration	Result
2-methylbutan	Fish	LC50	96 h	12,8mg/l
2-methylbutan	Daphnia	EC50	48 h	2,3 mg/l
isobutan	Algae	EC50	72 h	8,6 mg/l
isobutan	Daphnia	EC50	48 h	16,3 mg/l
isobutan	Fish	LC50	96 h	28 mg/kg

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
2-methylbutan	Yes	No data available	71,43%
isobutan	Yes	No data available	No data available

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BFC
2-methylbutan	No	No data available	No data available
isobutan	No	No data available	No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

This product contains ecotoxic substances which can have damaging effects on water-organisms. This product contains substances which can cause undesirable long-term effects in the water environment, due to its poor biodegradability.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste.

Waste

EWC code

16.05.05

Specific labelling
-

Contaminated packing
Packaging which contains leftovers from the product must be disposed of in the same way as the product.

SECTION 14: Transport information

This product is covered by the conventions on dangerous goods.

14.1 – 14.4

ADR/RID

14.1. UN number	1950
14.2. UN proper shipping name	
14.3. Transport hazard class(es)	2.1
14.4. Packing group	
Notes	
Tunnel restriction code	-

IMDG

UN-no.	1950
Proper Shipping Name	Aerosols
Class	2.1
PG*	
EmS	F-D, S-U
MP**	Yes
Hazardous constituent	-

IATA/ICAO

UN-no.	
Proper Shipping Name	
Class	
PG*	

14.5. Environmental hazards
This product contains substances which can cause undesirable long-term effects in the water environment, due to its poor biodegradability.

14.6. Special precautions for user
-

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application
People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC.

Demands for specific education
-

Additional information

Sources
Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.
Council Directive 75/324/EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers.
EC Regulation 1272/2008 (CLP).
EC regulation 1907/2006 (REACH).

15.2. Chemical safety assessment
No

SECTION 16: Other information

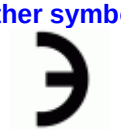
Full text of H-phrases as mentioned in section 3

H220 - Extremely flammable gas.
H224 - Extremely flammable liquid and vapour.
H225 - Highly flammable liquid and vapour.
H228 - Flammable solid.
H280 - Contains gas under pressure; may explode if heated.
H304 - May be fatal if swallowed and enters airways.
H312 - Harmful in contact with skin.
H315 - Causes skin irritation.
H332 - Harmful if inhaled.
H336 - May cause drowsiness or dizziness.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.
H411 - Toxic to aquatic life with long lasting effects.
EUH066 - Repeated exposure may cause skin dryness or cracking.

The full text of identified uses as mentioned in section 1

-

Other symbols mentioned in section 2



Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

The safety data sheet is validated by

KAO

Date of last essential change (First cipher in SDS version)

2014-12-04

Date of last minor change (Last cipher in SDS version)

2014-12-04