

1. Substance/description of preparation and company

1.1 description of preparation

Airduster Art.Nr. 67124

producer/supplier	Kleinmann GmbH
street / P.O. Box	Am Trieb 13 / -
nationality / zip / city	D - 72820 Sonnenbühl-Undingen
telephone:	07128/92 92-0
telefax:	07128/92 92 92
responsible department:	dept. QS
emergency number:	++49 (0)30 / 19240
	Advice Center for Poisoning Symptoms, Berlin

2. Composition / information on components of preparation

2.1 general characterisation

□□□□□

2.2 hazardous components

<u>CAS No.</u>	<u>description</u>	<u>weight - %</u>	<u>symbol</u>	<u>R-sent</u>
74-98-6	Propan	5-10%	F+	12
75-28-5	Butan	30-70%	F	11

3. Possible dangers

3.1 description of dangers: Container under pressure. F+ highly inflammable.

3.2 special information on danger for people and environment: danger of bursting when heated. Increased interior pressure in closed containers. Container is under pressure. Do not expose directly at sun and at temperatures over 50 °C (p.e. with incandescent lamps). Do not open with force and do not burn after use. Do not spray on flames or flaming objects. Keep away from ignition forces - do not smoke. Store out of reach of children.

4. First aid measures

4.1 general information: -

4.2 inhaling

supply fresh air or oxygen Consult emergency doctor if complaints are permanent.
in case of unconsciousness use stable lateral-position for transport.

4.3 skin contact

wash off with water and soap immediately and rinse thoroughly.
in case of permanent skin irritation consult doctor.

4.4 eye contact

rinse open eyes under running water for various minutes. Consult doctor.

4.5 swallowing: - swallowing liquid gas is extremely difficult. Drink water (mixed with activated carbon if available) Consult a doctor immediately.
stomach irrigation and vomiting can lead to aspiration.

4.6 information for the doctor

danger of aspiration when swallowing or vomiting.
the following symptoms can be observed: ice anesthesia in case of skin and eye contact.

Kleinmann GmbH

The data listed here is supposed to describe the product with respect to the necessary safety precautions. They do not aim at establishing certain properties, and they are based on the current level of our knowledge. No liability.

5. Firefighting measures

5.1 suitable extinguishing agents:

CO₂, firefighting powder or spray jetted water. Fight larger fires with spray jetted water or alcohol resistant foam.

5.2 extinguishing agents not suitable for safety reasons: fully jetted water

5.3 special dangers caused by the material or the preparation, its combustion product or developing gases:

development of explosive air-gas mixtures possible.
carbon monoxide can develop in a fire.

5.4 special protection equipment for firefighting

wear breathing apparatus independent from the circulating air.
wear a complete protection suit.
depending on size of the fire, coordinate with fire in the surroundings.

6. Measures for accidental evolution

see point 8 and point 13.

6.1 personal safety measures:

wear protective clothing. Keep unprotected people away.
provide for sufficient ventilation.
keep away ignition sources.
avoid contact with eyes and skin.

6.2 environmental protection measures:

do not introduce larger quantities into sewerage system or into waters.
inform responsible authorities when sewerage system or waters are affected.
inform responsible authorities when soil is affected.

6.3 cleaning methods:

provide for sufficient ventilation. Dispose contaminated waste material according to point 13.

7. Storage and handling

7.1 handling

information for safe handling:

cool and dry storage in tightly closed Gebinden.
provide for good ventilation/suction filter at the workplace.
provide for good ventilation at ground level (vapor is heavier than air).

information on protection of fire and explosion:

inflammable liquid. Vapor is heavier than air and can build explosive mixtures with air. Cool endangered containers with water. Keep away ignition sources and do not smoke.
take measures against electrostatic charging.

7.2 storage

requirements for storage rooms and containers:

store in a cool place. Provide for solvent-resistant and tightly closing floor.
comply to the authority regulations on the storage of pressure gas packaging

information for materials stored together: no prohibitions concerning materials stored together

special storage conditions (see point 10.2):

keep container tightly closed. Cool storage.
protect from heat and direct sun exposure.

Kleinmann GmbH

The data listed here is supposed to describe the product with respect to the necessary safety precautions. They do not aim at establishing certain properties, and they are based on the current level of our knowledge. No liability.

heating leads to increased pressure and danger of bursting.
store container in a room with good ventilation.

8. Limitations of exposition and personal protection equipment

8.1 additional information for the arrangement of technical plants:

see point 7 □□□□□

8.2 components with limit values that are relevant to the workplace

<u>CAS-No.</u>	<u>Description of material</u>	<u>Type</u>	<u>Value</u>	<u>Unit</u>
75-28-5	butan	MAK	2350	mg/m3
			1000	ml/m3
74-98-6	Propan	MAK	1800	mg/m3
			1000	ml/m3

additional information: the lists valid during time of drawing up are used as basis

8.3 personal protection equipment

breathing protection: wear protective mask in case of regular exposure and inappropriate ventilation.

hand protection: -

eye protection: wear tight protective glasses in case of regular exposure.

body protection: □□□□□

general protection and hygiene measures:

take the usual measures for the use of chemicals.

avoid eye and skin contact.

do not inhale gases / vapors / aerosols.

9. Physical and chemical properties

	<u>value</u>	<u>unit</u>	<u>method</u>
9.1 appearance/smell:			
state:	compressed	liquid gas	
color:	transparent		
odor:	mild		
9.2 data relevant for safety			
pH value:	n.a.		
change of state			
melting point/melting area *:	n.a.		
boiling point/boiling area *:	n.a.		
flaming point :	n.a.		
ignition temperatur: *:	<230	°C	
danger of explosion:	the development of explosive air-vapour mixtures is possible.		
explosion limits:			
lower explotson limit: *:	-	Vol.-%	
upper explosion limit: *:	-	Vol.-%	
steam pressure *:	-	mbar	

Kleinmann GmbH

The data listed here is supposed to describe the product with respect to the necessary safety precautions. They do not aim at establishing certain properties, and they are based on the current level of our knowledge. No liability.

density: - g/cm³ 20°C
water solubility: -
viscosity, dyn. *: - mPa s dyn., bei 20 °C
content of solvent - w.-%
9.3 additional information
refraction index: -
That with „*“ marked parameters refers on the most dangerous component in the preparation.

10 Stability and reactivity

- 10.1 conditions to be avoided**
warmth, flames
10.2 material to be avoided
reaction with strong oxidizing agents.
10.3 hazardous decomposition products
CO, HF,

11 Information concerning toxicology

- 11.1 toxicologic tests**
acute toxicity
primary irritative effects:
in the eye: can cause irritative effects.
11.2 additional information: according to the information available to us, the product does not cause health damages if it is used properly and as agreed

12 Information on ecology

- 12.1 information about elimination:**
decomposability about:
The biological decomposability refers to the sum of the single additives.
12.2 behavior in environmental compartment: -
12.3 ecotoxic effects: -

13 Information on disposal

- 13.1 product recommendation:**
comply with regulations of local authorities.
Do not introduce larger undiluted quantities into ground water, sewerage system or into waters.
13.2 for uncleaned packaging
safe handling: comply with regulations of local authorities.

14 Transport regulations

road-transport by ADR
UN – No: 1950
class: 2

Kleinmann GmbH

The data listed here is supposed to describe the product with respect to the necessary safety precautions. They do not aim at establishing certain properties, and they are based on the current level of our knowledge. No liability.

number / letter: 5 F
description of good: pressure gas packaging
comment:
for regulations concerning reduced quantities see RN 2401a.
recommendation: store separately from food stuff and tobacco.
Information respecting sea - and air-transportation is given on inquiry.

15 Regulations

15.1 labeling regulation on hazardous material including EC regulations (67/548/EEC as well as 88/379/EEC)

symbol and description of danger:



F+
Highly inflammable
propan / butan (label)

most dangerous component:

R-sentences:

12 Highly inflammable

spray-application: S 23 aerosols don't inhale

15.2 special labeling of special preparations:

name, address, telephone of producer or seller.

container is under pressure. Do not expose directly at sun and at temperatures over 50 °C (p.e. with incandescent lamps). Do not open with force and do not burn after use. Do not spray on flames or flaming objects. Keep away from ignition forces - do not smoke. Store out of reach of children.

16. additional information

the information refers to the product in its condition on delivery.

department issuing data sheet: Dep. QS

data sheet labeling: □□□□□

Alterations are at the left margin with „*“ marked.

Legend:

n.a. = not applicable / n.a. = not available / n.t. = not tested / n.d.a. = no data available /

n.c.d. = not called differently

VbF = regulation on inflammable liquids

MAK = maximum concentration at workplace in mg/m³ = ppm

WGK = hazard category for water

Kleinmann GmbH

The data listed here is supposed to describe the product with respect to the necessary safety precautions. They do not aim at establishing certain properties, and they are based on the current level of our knowledge. No liability.