SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 (REACH) Article 31 and Annex II

Soudabond Easy Genius Gun / ADMASTER (Paneles y Block)

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation:

Product name: Soudabond Easy Genius Gun / Admaster (Paneles y Block)

1.2 Use of the substance / preparation:

polyurethane

1.3 Company/undertaking identification:

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel: +32 14 42 42 31
Fax: +32 14 44 39 71
msds@soudal.com

1.4 Emergency telephone:

24h/24h: +32 14 58 45 45 (BIG)

2. Hazards identification

DSD/DPD

Classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC
Extremely flammable
Harmful by inhalation
Irritating to eyes, respiratory system and skin
Limited evidence of a carcinogenic effect
May cause sensitisation by inhalation and skin contact
Harmful: danger of serious damage to health by prolonged exposure through inhalation

Other hazards

May be ignited by sparks
Gas/vapour spreads at floor level: ignition hazard
Aerosol may explode under the effect of heat

3. Composition/information on ingredients

Name	CAS No EINECS/ELINCS	Conc.	Classification according to DSD/DPD	Classification according to CLP	Note
tris(2-chloro-1-methylethyl) phosphate	13674-84-5 237-158-7	1%<C<25%	Xn; R22 R52-53	Acute Tox. 4; H302 Aquatic Chronic 3; H412	(1)
polymethylene polyphenyl isocyanate	9016-87-9	C>25%	Carc. Cat. 3; R40 Xn; R20 - 48/20 Xi; R36/37/38 R42/43	Carc. 2; H351 Acute Tox. 4; H332 STOT RE 2; H373 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317	(1)(2)
1,1-difluoroethane	75-37-6 200-866-1	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas (*) - Liquefied gas; H280	(1)
propane	74-98-6 200-827-9	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)

isobutane	75-28-5 200-857-2	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas (*) - Liquefied gas; H280	(1)(2)
dimethyl ether	115-10-6 204-065-8	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)

(1) For R-phrases and H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit

4. First aid measures

4.1 After inhalation:
Remove the victim into fresh air
Respiratory problems: consult a doctor/medical service

4.2 Skin contact:
Wash immediately with lots of water
Take victim to a doctor if irritation persists

4.3 Eye contact:
Rinse immediately with plenty of water
Do not apply neutralizing agents
Take victim to an ophthalmologist if irritation persists

4.4 After ingestion:
Rinse mouth with water
Immediately after ingestion: give lots of water to drink
Do not induce vomiting
Consult a doctor/medical service if you feel unwell

5. Fire-fighting measures

5.1 Suitable extinguishing media:
Quantities of water
Polyvalent foam
BC powder
Carbon dioxide

5.2 Unsuitable extinguishing media:
No unsuitable extinguishing media known

5.3 Special exposure hazards:
May be ignited by sparks
Gas/vapour spreads at floor level: ignition hazard
Aerosol may explode under the effect of heat
On burning: release of toxic and corrosive gases/vapours (phosphorus oxides, nitrous vapours, hydrogen chloride, hydrofluoric acid, carbon monoxide - carbon dioxide)
May polymerize on exposure to temperature rise
On heating: release of toxic/combustible gases/vapours (hydrogen cyanide)

5.4 Instructions:
If exposed to fire cool the closed containers by spraying with water
Physical explosion risk: extinguish/cool from behind cover
Do not move the load if exposed to heat
After cooling: persistant risk of physical explosion
Dilute toxic gases with water spray

5.5 Special protective equipment for fire-fighters:
Gloves
Protective goggles
Head/neck protection
Protective clothing
Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

6.1 Personal precautions:

See heading 8.2

6.2 Environmental precautions:

Dam up the solid spill
Use appropriate containment to avoid environmental contamination
See heading 13

6.3 Methods for cleaning up:

Allow product to solidify and remove it by mechanical means
Carefully collect the spill/leftovers
Clean (treat) contaminated surfaces with acetone
Take collected spill to manufacturer/competent authority
Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

Use spark-/explosionproof appliances and lighting system
Keep away from naked flames/heat
Keep away from ignition sources/sparks
Observe very strict hygiene - avoid contact

7.2 Storage:

Safe storage requirements:

Store in a cool area
Keep out of direct sunlight
Ventilation at floor level
Fireproof storeroom
Unauthorized persons are not admitted
Meet the legal requirements
Storage temperature: < 50 °C
Max. storage time: 1 year(s)

Keep away from:

(strong) acids
(strong) bases
amines

Suitable packaging material:

aerosol

7.3 Specific use(s):

See information supplied by the manufacturer for the identified use(s)

8. Exposure controls/Personal protection

8.1 Exposure limit values:

8.1.1 Occupational exposure:

If limit values are applicable and available these will be listed below.

Regulatory exposure limit (The Netherlands)

Dimethylether	Short time value	790 ppm 1500 mg/m³
	Time-weighted average exposure limit	500 ppm 950 mg/m³

Indicative exposure limit EU (Directives 2009/19/EU, 2006/15/EC, 2000/39/EC, 98/27/EC, 96/94/EC, 91/322/EEC)

Dimethylether	Short time value	- ppm - mg/m³
	Time-weighted average exposure limit	1000 ppm 1920 mg/m³

Limit Value (Belgium)

Dimethylether	Short time value	- ppm - mg/m³

Dimethylether	Time-weighted average exposure limit	1000 ppm 1920 mg/m³
Alifatische koolwaterstoffen in gasvorm: alkanen (C1-C4)	Short time value	- ppm - mg/m³
	Time-weighted average exposure limit	1000 ppm - mg/m³

TLV (USA)

Aliphatic hydrocarbon gases - Alkane(C1-C4)	Short time value	- ppm
	Time-weighted average exposure limit	1000 ppm

TRGS 900 (Germany)

Isobutan	Time-weighted average exposure limit	1000 ppm 2400 mg/m³
Dimethylether	Time-weighted average exposure limit	1000 ppm 1900 mg/m³
Propan	Time-weighted average exposure limit	1000 ppm 1800 mg/m³

Limit Value (France)

Oxyde de diméthyle	Short time value	- ppm - mg/m³
	Time-weighted average exposure limit	1000 ppm 1920 mg/m³

Limit Value (UK)

Isocyanates, all (as -NCO)	Short time value	-(-NCO) ppm 0.07(-NCO) mg/m³
	Time-weighted average exposure limit	-(-NCO) ppm 0.02(-NCO) mg/m³
Dimethyl ether	Short time value	500 ppm 958 mg/m³
	Time-weighted average exposure limit	400 ppm 766 mg/m³

8.1.2 Sampling methods:

Product name	Test	Number	Sampling method	Remarks
1,1-Difluoroethane	OSHA	CSI		
Isocyanates	NIOSH	5521	wet chemical	
Isocyanates	NIOSH	5522	wet chemical	
Methyl Ether	OSHA	CSI		
Papi	OSHA	CSI		
Propane	OSHA	CSI		

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

Measure the concentration in the air regularly

Personal protective equipment:

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit

b) Hand protection:

Gloves

Materials	Breakthrough time	Thickness
LDPE (Low Density Poly Ethylene)	10 minutes	0.025 mm

c) Eye protection:

Protective goggles

d) Skin protection:

Head/neck protection

Protective clothing

8.2.2 Environmental exposure controls:

See headings 6.2, 6.3 and 13

9. Physical and chemical properties

9.1 General information:

Physical form	Aerosol
Odour	Characteristic odour
Colour	Variable in colour, depending on the composition

9.2 Important health, safety and environmental information:

Relative density	1.0
Solubility in solvents	Soluble in organic solvents
Relative vapour density	> 1

9.3 Other information:

10. Stability and reactivity

10.1 Conditions to avoid:

Possible fire hazard

heat sources
ignition sources

Stability

Stable under normal conditions

Reactions

May polymerize with many compounds e.g.: (strong) bases and amines
Reacts violently with (some) acids/bases

10.2 Materials to avoid:

(strong) acids
(strong) bases
amines

10.3 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (phosphorus oxides, nitrous vapours, hydrogen chloride, hydrofluoric acid, carbon monoxide - carbon dioxide)

On heating: release of toxic/combustible gases/vapours (hydrogen cyanide)

11. Toxicological information

11.1 Acute toxicity:

propane

LC50 inhalation (rat)	513 mg/l/4h

dimethyl ether

LC50 inhalation (rat)	309 mg/l/4h

1,1-difluoroethane

LC50 inhalation (rat)	176 mg/l/4h

polymethylene polyphenyl isocyanate

LD50 oral (rat)	> 10000 mg/kg

isobutane

LC50 inhalation (rat)	> 50 mg/l/4h

tris(2-chloro-1-methylethyl) phosphate

LD50 oral (rat)	1150 - 1750 mg/kg
LD50 dermal (rat)	> 2000 mg/kg
LD50 dermal (rabbit)	> 2000 mg/kg
LC50 inhalation (rat)	> 5 mg/l/4h

11.2 Chronic toxicity:

Prolonged exposure: danger of damage to health through inhalation
No certainty about human carcinogenic properties

Not listed in mutagenicity class (EC,MAK)
Contains a substance of group C (MAK-Schwangerschaftsgruppe)

propane

MAK - Schwangerschaft Gruppe	D

dimethyl ether

MAK - Schwangerschaft Gruppe	D

polymethylene polyphenyl isocyanate

EC carc cat	3
IARC - classification	3
MAK - Krebserzeugend Kategorie	4
MAK - Schwangerschaft Gruppe	C
CLP carc cat	category 2

isobutane

MAK - Schwangerschaft Gruppe	D

Soudabond Easy Gun

EC carc cat	3
CLP carc cat	category 2

11.3 Acute effects/symptoms:

Inhalation:
Dry/sore throat
Coughing
Irritation of the respiratory tract
Irritation of the nasal mucous membranes
Runny nose
FOLLOWING SYMPTOMS MAY APPEAR LATER:
Possible inflammation of the respiratory tract
Risk of lung oedema
Respiratory difficulties

Skin contact:
Tingling/irritation of the skin

Eye contact:
Irritation of the eye tissue
Lacrimation

Ingestion:
Not applicable

11.4 Chronic effects:
ON CONTINUOUS/REPEATED EXPOSURE/CONTACT:
Feeling of weakness
Itching
Skin rash/inflammation
May stain the skin
Dry skin
Coughing
Possible inflammation of the respiratory tract
Respiratory difficulties

12. Ecological information

12.1 Ecotoxicity:

propane

LC50 fishes

species	value	duration (h)	remarks
PISCES	> 1000 mg/l	96 h	

dimethyl ether

LC50 fishes

species	value	duration (h)	remarks
PISCES	>1000 mg/l	96 h	

polymethylene polyphenyl isocyanate

LC50 fishes

species	value	duration (h)	remarks
PISCES	>1000 mg/l	96 h	

tris(2-chloro-1-methylethyl) phosphate

LC50 fishes

species	value	duration (h)	remarks
BRACHYDANIO RERIO	56.2 mg/l	96 h	

EC50 Daphnia

species	value	duration (h)	remarks
DAPHNIA MAGNA	65 - 335 mg/l	48 h	

EC50 other aquatic organisms

species	value	duration (h)	remarks
SCENEDESMUS SUBSPICATUS	45 mg/l	72 h	

12.2 Mobility:

Volatile organic compounds (VOC) 21 %

Solubility in/reaction with water Literature reports: insoluble in water

12.3 Persistence and degradability:

Contains non readily biodegradable component(s)

12.4 Bioaccumulative potential:

No bioaccumulation data available

12.5 Results of PBT assessment:

Not applicable, based on available data

12.6 Other adverse effects:

Not dangerous for the ozone layer (1999/45/EC)

An ingredient is subject to prohibitions provided for in regulation (EC) No 842/2006 (O.J. L161 of 14/06/2006)

Lifetime	Radiative efficiency	GWP 20-yr time horizon	GWP 100-yr time horizon	GWP 500-yr time horizon
		29.9782	8.5064	2.6068

13. Disposal considerations

13.1 Provisions relating to waste:

Waste material code (Directive 2008/98/EC, decision 2001/118/EC)

08 04 09* : waste adhesives and sealants containing organic solvents or other dangerous substances

Depending on branch of industry and production process, also other EURAL codes may be applicable

Hazardous waste according to Directive 2008/98/EC

13.2 Disposal methods:

Recycle/reuse

Specific treatment

Remove waste in accordance with local and/or national regulations

Do not discharge into drains or the environment

13.3 Packaging/Container:

Waste material code packaging (Directive 2008/98/EC)

15 01 10* : packaging containing residues of or contaminated by dangerous substances

14. Transport information

ADR

Proper shipping name	Aerosols

UN number	1950
Class	2
Packing group	
Hazard identification number	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	no

RID

Proper shipping name	Aerosols
UN number	1950
Class	2
Packing group	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	no

ADN

Proper shipping name	Aerosols
UN number	1950
Class	2
Packing group	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	no

IMO

Proper shipping name	Aerosols
UN number	1950
Class	2.1
Packing group	-
Labels	2.1
Marine pollutant	
Environmentally hazardous substance mark	no

ICAO

Proper shipping name	Aerosols
UN number	1950
Class	2.1
Packing group	
Labels	2.1
Environmentally hazardous substance mark	no

15. Regulatory information

15.1 EU Legislation:

DSD/DPD

Classification according to directives 67/548/EEC, 1999/45/EC and 2006/8/EC

Extremely flammable

Harmful

Contains: polymethylene polyphenyl isocyanate

R-phrases

20	Harmful by inhalation
36/37/38	Irritating to eyes, respiratory system and skin
40	Limited evidence of a carcinogenic effect
42/43	May cause sensitisation by inhalation and skin contact
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation

S-phrases

23	Do not breathe spray
36/37	Wear suitable protective clothing and gloves
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
51	Use only in well-ventilated areas
(63)	(In case of accident by inhalation: remove casualty to fresh air and keep at rest)

Additional recommendations

	Keep away from sources of ignition - No smoking.
	Keep out of the reach of children.
	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C.
	Do not pierce or burn, even after use.
	Do not spray on a naked flame or any incandescent material.
	Contains isocyanates. See information supplied by the manufacturer.
	— Persons already sensitised to diisocyanates may develop allergic reactions when using this product. — Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. — This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

15.2 National provisions:

The Netherlands

Waterbezwaarlijkheid (for NL)	8
Waste identification other lists of waste materials	LWCA (the Netherlands): KGA category 06

Germany

TA-Luft	propane: TA-Luft Klasse 5.2.5 dimethyl ether: TA-Luft Klasse 5.2.5 1,1-difluoroethane: TA-Luft Klasse 5.2.5 isobutane: TA-Luft Klasse 5.2.5
WGK	1 Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

15.3 Specific community rules:

REACH Annex XVII - Restriction	Contains component(s) included in Annex XVII of Regulation (EC) No. 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

16. Other information

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question.

Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult your BIG licence agreement for details.

(*) = INTERNAL CLASSIFICATION (NFPA)

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive
DPD Dangerous Preparation Directive
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Full text of any R-phrases referred to under headings 2 and 3:

R12	Extremely flammable
R20	Harmful by inhalation
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R40	Limited evidence of a carcinogenic effect
R42/43	May cause sensitisation by inhalation and skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of any H-statements referred to under headings 2 and 3:

H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Full text of any classes referred to under headings 2 and 3:

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Press. Gas	Gases under pressure
Press. Gas (*)	Gases under pressure (*)
Resp. Sens.	Respiratory sensitization
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure