

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006, Article 31

BRS02

One-component polyurethane foam for windows and doors, E fire resistance class according to EN 13501-1, with plastic nozzle and disposable glove

Manufacturer: Tecfi S.p.A. - S.S. Appia, km 193 - 81050 Pastorano (CE), Italy - rdc@tecfi.it

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

1.1. Product identifier

UFI: RT10-K04K-G00D-J75S

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

No further relevant information available.

Application of the substance / the mixture

One-component polyurethane foam - gun grade

1.3. Details of the supplier of the safety data sheet

Company name

Tecfi S.p.A.

Address

S.S.Appia km 193

e-mail

81050 Pastorano (CE) - Italia - tel. 0823 88 3338 - fax 0823 - 883260
rdc@tecfi.it

1.4. Emergency telephone number

Osp. NIGUARDA CA' GRANDA – Milano 02/66101029
CAV Policlinico "A. Gemelli" - Roma 06/3054343
Osp. "A. Cardarelli" - Napoli 081/7472870

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Carc. 2	H351	Suspected of causing cancer.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.

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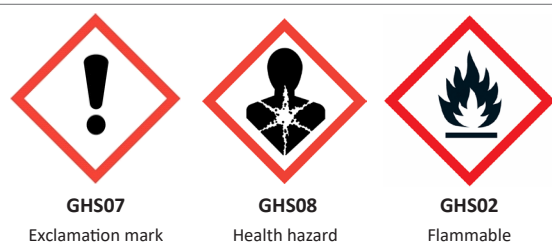
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2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms: The product is classified and labelled according to the CLP regulation.



Signal word Danger

Hazard-determining components of labelling:
diphenylmethanediisocyanate, isomers and homologues

Hazard statements:

H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection.
P284	In case of inadequate ventilation wear respiratory protection (a protective mask with an appropriate gas filter - i.e. type A1 according to standard EN 14387).
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of container to in accordance with local/regional/national/international regulation.

Additional information:

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. As from 24 August 2023 adequate training is required before industrial or professional use.

EUH204 Contains isocyanates. May produce an allergic reaction.

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2.3. Other hazards

Results of PBT and vPvB assessment Not applicable

PBT

Not applicable.

vPvB

Not applicable.

3. Composition/information on ingredients

3.1. Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

IDENTIFICATION	X=CONC. %	CLASSIFICATION 1272/2008 (CLP)
diphenylmethanediisocyanate, isomers and homologues CAS: 9016-87-9	35-45%	<p>⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 5% Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0,1 % STOT SE 3; H335: C ≥ 5 %</p>
tris(2-chlorisopropyl)-phosphate CAS: 13674-84-5 EINECS: 237-158-7 Reg.nr.: 01-2119447716-31	15-20%	<p>⚠ Acute Tox. 4, H302</p>
dimethyl ether CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 Reg.nr.: 01-2119472128-37	1-10%	<p>⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280</p>
isobutane CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-01-8 Reg.nr.: 01-2119485395-27-xxxx	1-10%	<p>⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280</p>
propane CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21-xxxx	1-5%	<p>⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280</p>

Additional information: For the wording of the listed hazard phrases refer to section 16.

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4. Description of first aid measures

4.1. Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing agents: Foam

CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2. Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

Hydrogen cyanide (HCN)

5.3. Advice for firefighters

Protective equipment: Mouth respiratory protective device.

Additional information

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.

6.2. Environmental precautions

Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow product to reach sewage system or any water course.

6.3. Methods and material for containment and cleaning up

Dispose contaminated material as waste according to section 13.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Do not flush with water or aqueous cleansing agents
Ensure adequate ventilation.

6.4. Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. Handling and storage

7.1. Precautions for safe handling

Ensure that suitable extractors are available on processing machines
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

7.2. Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

Information about storage in one common storage facility:

Do not store together with acids.
Do not store together with alkalis (caustic solutions).
Store away from oxidising agents.

Further information about storage conditions:

· Further information about storage conditions:
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Protect from humidity and water.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

7.3. Specific end use(s)

No further relevant information available.

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8. Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

IOELV Short-term value: 0.07 mg/m³
Long-term value: 0.02 mg/m³

CAS: 115-10-6 dimethyl ether

IOELV Long-term value: 1920 mg/m³, 1000 ppm

Additional information: The lists valid during the making were used as basis.

8.2. Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

Respiratory protection:

In case of inadequate ventilation in small enclosed spaces wear respiratory protection, a protective mask (EN ISO 140: 1999/AC2000) with an appropriate gas filter (i.e. type A1 according to standard EN 14387:2004).

Hand protection



Protective gloves

Protective gloves according to EN ISO 374-4:2020.

Material of gloves Glove material LDPE, min. thickness 0,06 mm

Penetration time of glove material Minimum breakthrough time >10 minutes (Level 1)

Eye/face protection



Tightly sealed goggles

Wear airtight protective goggles according to EN ISO 16321-1:2022

Body protection: Protective work clothing according to EN ISO 13688:2013

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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information	
Physical state	Aerosol
Colour	According to product specification
Odour	Characteristic
Melting point/freezing point	Undetermined
Boiling point or initial boiling point and boiling range	Undetermined
Lower and upper explosion limit	
Lower	3,0 Vol %
Upper	18,6 Vol %
Flash point	Not applicable, as aerosol.
Auto-ignition temperature	199 °C
Solubility	
water	Insoluble.
Density and/or relative density	
Density	Not determined
9.2 Other information	
Appearance	
Form	Aerosol
Important information on protection of health and environment, and on safety.	
Ignition temperature	Product is not selfigniting.
Explosive properties	Heating may cause an explosion.
Solvent content	
VOC (CE)	17.80 %

Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosol	Extremely flammable aerosol. Pressurised container: May burst if heated.

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Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

10. Stability and reactivity

10.1. Reactivity

No further relevant information available.

10.2. Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

No further relevant information available.

10.6. Hazardous decomposition products

Hydrogen cyanide (prussic acid)

Carbon monoxide

Nitrogen oxides (NOx)

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11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Harmful if inhaled.

LD/LC50 values relevant for classification:

N. CAS	Chemical name				
	Exposure route	Dose	Species	Source	Method
115-10-6	dimethyl ether				
	Inhalative	LC50/4 h 308 mg/l	rat		
13674-84-5	tris(2-chlorisopropyl)-phosphate				
	Oral	LD50 3.600 mg/kg	rat		

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

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12. Ecological information

12.1. Toxicity

Aquatic toxicity: No further relevant information available.

12.2. Persistence and degradability

No further relevant information available.

12.3. Bioaccumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

12.5. Results of PBT and vPvB assessment

Not applicable.

PBT

Not applicable.

vPvB

Not applicable.

12.6. Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7. Other adverse effects

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

13.1. Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

08 05 01*	waste isocyanates
16 05 04*	gases in pressure containers (including halons) containing hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

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14. Transport information

14.1. UN number or ID number

ADR, IMDG, IATA 1950

14.2. UN proper shipping name

ADR 1950 AEROSOLS

IMDG, IATA AEROSOLS

14.3. Transport hazard class(es)

ADR
Class 2.5F Gases
Label 2.1

IMDG, IATA
Class 2.1 Gases
Label 2.1

14.4. Packing group

ADR, IMDG, IATA Void

14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user

Warning: Gases
EMS Number: F-D,S-U

14.7 Maritime transport in bulk according to IMO instruments

Transport/Additional information:

ADR
Limited quantities (LQ) 1l
UN "Model Regulation": UN1950, AEROSOL, 2.1

15. Regulatory information

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

COMMISSION REGULATION (EU) 2020/878
amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Directive 2012/18/EU

- Named dangerous substances - ANNEX I
- Seveso category
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

None of the ingredients is listed.
P3a FLAMMABLE AEROSOLS

DIRECTIVE 2011/65/EU on the restriction of the use of certain
hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

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REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS
(Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. Other information

Relevant phrases

- 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.
- H400 Very toxic to aquatic life.
- EUH204 Contains isocyanates. May produce an allergic reaction.

Abbreviations and acronyms:

- Flam. Gas 1A: Flammable gases – Category 1A
- Aerosol 1: Aerosols – Category 1
- Press. Gas (Comp.): Gases under pressure – Compressed gas
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Carc. 2: Carcinogenicity – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2