

## Safety data sheet

In accordance with the criteria of Regulation No 1907/2006  
(REACH) and 2015/830 Date of issue: 2017.12.26  
Version: 1.0/EN

### Section 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier :** Gudfor A++
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
Relevant identified uses: polyurethane insulation.  
Uses advised against: not determined.
- 1.3 Details of the distributor of the safety data sheet:** UAB „TEGRA STATE“,  
Savanorių pr. 178A, LT-03154 Vilnius  
Phone/fax +370 5 266 11 67,  
www.tegra.lt, [www.tegrastate.lt](http://www.tegrastate.lt), info@tegra.lt
- 1.4 Emergency telephone number:** +370 5 236 20 52 or +370 687 53378 (24/7)

### Section 2: Hazards identification

#### 2.1 Classification of the substance or mixture :

Aerosol 1 H222, H229; Resp. Sens. 1 H334;

Carc. 2 H351; STOT RE 2 H373;

Acute Tox. 4 H302, Acute Tox. 4 H332;

Skin Irrit. 2 H315; Eye Irrit. 2 H319;

Skin Sens. 1 H317; STOT SE 3 H335

Extremely flammable aerosol. Pressurised container: May burst if heated. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing cancer. May cause damage to organs (respiratory tract) through prolonged or repeated exposure (inhalation). Harmful if swallowed. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation.

#### 2.2 Label elements:

##### Hazard pictograms and signal words



**Danger**

##### Product identifier

Contains: 4,4' diphenylmethanediisocyanate, isomere, homologue; propane-1,2-diol, propoxylated.

##### Hazard statements:

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst 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 (respiratory tract) through prolonged or repeated exposure (inhalation).

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### Precautionary statements:

P102 Keep out of reach of children.  
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.  
P271 Use only outdoors or in a well-ventilated area.  
P302+P352 IF ON SKIN: Wash with plenty of water and soap.  
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 contents/container to properly labeled waste containers in accordance with national regulation.

### 2.3 Other hazards

The components of this mixture do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

## Section 3: Composition/information on ingredients

### 3.1 Substances:

Not applicable.

### 3.2 Mixtures:

CAS Nr.: 9016-87-9 EINECS : 618-498-9 Index number: - REACH : -	<u>4,4' diphenylmethanediisocyanate, isomere, homologue</u> 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	40-45%
CAS Nr.: 25322-69-4 EINECS: 500-039-8 Index number: - REACH Nr.: -	<u>propane-1,2-diol, propoxylated</u> STOT RE 2 H373; Acute Tox. 4 H302	35-40%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0 REACH: 01-2119485395-27-XXXX	<u>izobutane</u> Flam. Gas 1 H220; Press. Gas H280	10-15%
CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 REACH : -	<u>dimethyl ether</u> <sup>1</sup> Press. Gas H280; Flam. Gas 1 H220	5-10%

1) substance with occupational exposure limit value established on the Community level. Full text of each relevant H phrase is given in section 16 of SDS.

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### Section 4 : First aid measures

#### 4.1 Description of first aid measures

Skin contact: take off contaminated clothing. Wash the contaminated skin thoroughly with water. Consult a doctor if disturbing symptoms occur.

Eye contact: protect non-irritated eye, remove contact lenses. Wash the contaminated eye with plenty of water for 10-15 minutes. Avoid powerful water stream – risk of cornea damage. Consult a doctor if disturbing symptoms occur.

Ingestion: do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not try to neutralize. Consult a doctor immediately, show packaging or label.

Inhalation: consult a doctor if disturbing symptoms appear. Move the victim to fresh air. Keep victim warm and calm.

#### 4.2 Most important symptoms and effects, both acute and delayed

Eye contact: may cause redness, tearing, blurred vision, burning sensation, irritation.

Skin contact: may cause redness, burning sensation, irritation, allergic reaction.

Ingestion: possible gastrointestinal problems.

Inhalation: may cause breathing problems, cough, allergy or asthma symptoms, irritation of the respiratory tract.

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

Physician makes a decision regarding further medical treatment after thorough examination of the injured. Treat symptomatically. Persons exposed to the product should be left under medical care for 48 hours (the possibility of delayed symptoms).

### Section 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media: adapt the extinguishing media to surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

#### 5.2 Special hazards arising from the substance or mixture

During the fire, the product may produce harmful gases containing carbon oxides, nitrogen oxides. Do not inhale combustion products, they can be dangerous for human health.

#### 5.3 Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Pressurized container - danger of explosion at high temperatures. Cool endangered containers from a safe distance with a water spray. The extinguishing water should not be allowed to enter drains, surface and ground waters.

### Section 6: Handling and storage

#### 6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. In case of large spills, isolate the area at risk. Use personal protective measures. Avoid eye and skin contamination. Do not breathe product's vapours. Ensure adequate ventilation. Ensure that only the trained personnel removes the effects of the accident.

#### 6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Secure drains. Notify appropriate emergency services.

#### 6.3 Methods and material for containment and cleaning up

Unhardened foam is sticky, so caution should be taken while removing it. Remove immediately with liquidabsorbing materials (e.g. sand, soil, universal binders, silica, etc.) and solvents, e.g. acetone, collect in a waste container. The material will polymerize in contact with moisture. Do not close containers (CO<sub>2</sub> is released). Remove the hardened foam mechanically.

#### 6.4 Reference to other sections

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

### Section 7: Handling and storage

#### 7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid contact with eyes and skin. Do not breathe vapours of the product. Before break and after work wash hands. Keep the unused containers tightly closed. Ensure adequate ventilation in the area when the product is used. Use personal protective equipment. People suffering from asthma, eczema or other skin problems should avoid skin contact with this product.

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### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in a dry, cool and well-ventilated area. Store away from food or animal feed. Protect from heat and direct exposure to sunlight. Do not store with incompatible materials (see subsection 10.5). Store at 5-30 °C.

### 7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

Specification	TWA 8 hour	STEL 15 min.
dimethyl ether [CAS Nr.: 115-10-6]	1920 mg/m <sup>3</sup>	-

Legal basis: Commission Directive 2006/15/EC, 2000/39/EC, 2009/161/EC, 2017/164/EU.

The table above shows the maximum workplace concentration values at the Community level. Please check any national occupational exposure limit values in your country.

#### Recommended control procedures

Procedures Concerning the control over the dangerous components concentrations in the air and control over the air quality in the workplace - if they are available and Justified for the position - in Accordance with the European Standards, with the conditions within the exposure place and a proper test methodology adapted to the working conditions.

### 8.2. Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Avoid contact with eyes and skin. Ensure adequate general and/or local ventilation. Take off contaminated clothing immediately.

#### Hand and body protection

Use chemical resistant protective gloves. Recommended material for gloves: nitrile rubber, viton. Wear protective clothing. In case of short-term contact, use protective gloves with efficacy level of 2 or more (breakthrough time > 30 min). In case of long-term contact, use protective gloves with efficacy level 6 (breakthrough time > 480 min).

When using protective gloves during work with chemical products, it should be noted that the efficacy levels and corresponding breakthrough times do not indicate actual times of protection at a particular workplace, because the protection can be affected by many factors, e.g. temperature, other substances etc. If there are any signs of degradation, damage or change in appearance (colour, flexibility, shape), it is recommended to replace the gloves with a new pair. Please follow the manufacturer's instructions, not only in terms of gloves' usage, but also in terms of their cleaning, maintenance and storage. It is also important to know how to take off the gloves in order to avoid hands contamination.

#### Eyes protection

Use tightly fitting protective glasses if there is a risk of skin contamination.

#### Respiratory protection

In case of inadequate ventilation, use a protective mask with a filter organic vapors.

Applied personal protective equipment must comply with the requirements of the Regulation (EU) 2016/425. The choice of personal protective equipment should be made taking into account the concentration and form of the substance in the workplace, the routes of exposure, the time of exposure and activities performed by the employee. The employer is obliged to provide protective equipment relevant to performed activities and in accordance with all quality requirements, including its maintenance and cleaning.

#### Environmental exposure controls

Do not allow to contaminate environment, do not enter into sewage system. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

physical state: liquid  
 colour: blue/green-blue  
 odour: characteristic  
 odour threshold: not determined  
 pH: not applicable  
 melting point/freezing point: not determined  
 initial boiling point and boiling range: not determined  
 flash point: < 00C evaporation rate: not determined

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flammability (solid, gas): not applicable  
upper/lower flammability or explosive limits: 11%/1,5% vol. vapour pressure: >500 kPa  
< 1\*105 mmHg at 25 °C (MDI)  
vapour density: not determined  
density (20°C): ≤ 1,3 g/cm<sup>3</sup>  
solubility(ies): soluble in acetone  
partition coefficient: n-octanol/water: not determined auto-ignition temperature: not determined decomposition temperature: not determined explosive properties: not display oxidising properties: not display  
viscosity: not determined  
**9.2 Other information**  
No additional test results.

### Section 10: Stability and reactivity

#### 10.1 Reactivity

Product is reactive. See also subsections 10.3-10.5.

#### 10.2 Chemical stability

The product is stable under normal conditions of use and storage.

#### 10.3 Possibility of hazardous reactions

With amines and alcohols, the product reacts with the release of a large amount of heat. Reacts with water with the release of carbon dioxide.

#### 10.4 Conditions to avoid

The container contains a mixture under increased pressure - it should be protected from sunlight, do not exceed the temperature of 50 °C.

#### 10.5 Incompatible materials

Strong oxidizing agents, water, amines, alcohols.

#### 10.6 Hazardous decomposition products

Not known.

### Section 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

ATE mix (inhalation) 3,3 mg/l

ATE mix (oral) 1315 mg/kg

Harmful if swallowed or if inhaled

##### Skin corrosion/irritation

Causes skin irritation.

##### Serious eye damage/irritation

Causes serious eye irritation.

##### Respiratory or skin sensitisation

Based on the properties of isocyanates and products containing them, it is believed that the product may cause serious irritation and allergic reactions of the skin and respiratory system. People with asthmatic problems, chronic respiratory diseases should not work with the product. Repeated exposure may cause permanent lung damage. Delayed appearance of symptoms is possible - breathing difficulties, coughing.

##### 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

Prolonged and repeated exposure through inhalation may cause damage to organs.

##### Aspiration hazard

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

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### Section 12: Ecological information

#### 12.1 Toxicity

Product is not classified as hazardous for the aquatic environment.

#### 12.2 Persistence and degradability

Product is not easily biodegradable.

#### 12.3 Bioaccumulative potential

Bioaccumulation is not expected.

#### 12.4 Mobility in soil

The product reacts with water. The reaction results in a chemically inert, non-biodegradable solid.

#### 12.5 Results of PBT and vPvB assessment

Components of the mixture do not meet the PBT or vPvB criteria.

#### 12.6 Other adverse effects

The mixture is not classified as hazardous to the ozone layer.

### Section 13: Disposal considerations

#### 13.1 Waste treatment methods

Disposal methods for the product: disposal in accordance with the local legislation. Do not dispose of with municipal waste.

Store the residues in original containers. Waste code should be given at the place of its formation.

Disposal methods for used packing: reuse/recycle/eliminate empty containers in accordance with the local legislation. Only completely empty container can be recycled.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

### Section 14: Transport information

#### 14.1 UN number

UN 1950



#### 14.2 UN proper shipping name

AEROSOLS

#### 14.3 Transport hazard class(es)

2

#### 14.4 Packing group

Not applicable.

#### 14.5 Environmental hazards

Mixture is not hazardous for the environment in accordance with the criteria contained in the transport regulations.

#### 14.6 Special precautions for user

Avoid sources of ignition and fire. Packages shall not be thrown or subjected to impact.

Receptacles shall be so stowed in the vehicle or container that they cannot be overturn or fall.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

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### Section 15: Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.  
Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).  
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, as amended.  
European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, as amended.  
2016/425/EU Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

#### 15.2 Chemical safety assessment

Chemical Safety Assessment is not required for mixtures.

### Section 16: Other information

#### Full text of indicated H phrases mentioned in section 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 (respiratory tract) through prolonged or repeated exposure (inhalation).

#### Clarification of aberrations and acronyms

Acute Tox. 4 Acute toxicity, category 4  
STOT SE 3 Specific target organ toxicity — single exposure, category 3  
STOT RE 2 Specific target organ toxicity — repeated exposure, category 2  
Flam. Gas 1 Flammable gas, category 1  
Press. Gas Gases under pressure  
Carc. 2 Carcinogenicity, category 2  
Skin Sens.1 Skin sensitization category 1  
Resp. Sens. 1 Respiratory sensitization, category 1  
Skin Irrit. 2 Skin irritation category 2  
Eye Irrit. 2 Eye irritation, category 2  
PBT Persistent, Bioaccumulative and Toxic substance  
vPvB very Persistent, very Bioaccumulative substance

#### Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training. People associated with transport of hazardous materials in accordance with ADR should be adequately trained for their job responsibilities (general training, bench and safety).

#### Key literature references and sources of data

This SDS was prepared on the basis of sheets of the individual components, literature data, online databases (eg. ECHA, TOXNET, COSING) as well as our knowledge and experience, taking into account current legislation.  
Procedures used to classify the mixture  
Classification was based on data on hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended. The acute toxicity estimate (ATEmix) was determined using the appropriate conversion value from Table 3.1.2 in Annex I to CLP.

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid



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to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.

Šiame Saugos duomenų lape pateikta informacija remiasi Europos ir šalių lygmens šaltiniais, techninėmis žiniomis ir galiojančiais teisės aktais, tačiau negali garantuoti jų tikslumo. Ši informacija negali būti traktuojama kaip produkto savybių garantija, tai tiesiog saugos reikalavimų aprašymas. Mes nežinome ir nekontroliuojame šio produkto naudotojų taikomos profesinės metodologijos ir naudojimo sąlygų, todėl pats naudotojas yra atsakingas už tai, kad būtų imtasi priemonių, vykdat teisės aktų reikalavimus, susijusius su cheminių medžiagų tvarkymu, saugojimu, naudojimu ir pašalinimu. Šiame Saugos duomenų lape pateikta informacija taikytina tik šiam produktui, kuris neturėtų būti naudojamas, kitiems, nei nurodyta, tikslams.