



**SAFETY DATA SHEET**  
**Adhesion Promoter**

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

**1.1. Product identifier**

<b>Product name</b>	Adhesion Promoter
<b>Internal identification</b>	TGP
<b>Synonyms; trade names</b>	2 Propanol, sec-Propyl Alcohol, Dimethyl Carbinol, iso Propanol
<b>CAS number</b>	67-63-0
<b>EU index number</b>	603-117-00-0
<b>EC number</b>	200-661-7

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

<b>Identified uses</b>	Pre-treatment to aid adhesion
<b>Uses advised against</b>	Use only for intended applications.

**1.3. Details of the supplier of the safety data sheet**

<b>Supplier</b>	Trade Grade Products Ltd 10 Victory Close Woolsbridge Industrial Estate Three Legged Cross Wimborne, Dorset BH21 6SX United Kingdom 01202 820177 01202 814011 sales@thegluepeople.co.uk
-----------------	--

**1.4. Emergency telephone number**

<b>Emergency telephone</b>	0844 5605341 (24 Hours) (in use from 13/01/13)
----------------------------	--

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

<b>Physical hazards</b>	Flam. Liq. 2 - H225
<b>Health hazards</b>	Eye Irrit. 2 - H319 STOT SE 3 - H336
<b>Environmental hazards</b>	Not Classified

**2.2. Label elements**

<b>EC number</b>	200-661-7
------------------	-----------

## Adhesion Promoter

### Pictogram



### Signal word

Danger

### Hazard statements

H225 Highly flammable liquid and vapour.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P403+P235 Store in a well-ventilated place. Keep cool.

### Supplementary precautionary statements

P240 Ground/ bond container and receiving equipment.  
 P241 Use explosion-proof electrical equipment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P261 Avoid breathing vapour/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 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.  
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  
 P314 Get medical advice/ attention if you feel unwell.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

<b>Product name</b>	Isopropanol
<b>EU index number</b>	603-117-00-0
<b>CAS number</b>	67-63-0
<b>EC number</b>	200-661-7

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

CAUTION! First aid personnel must be aware of own risk during rescue! Remove affected person from source of contamination. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention immediately.

#### Inhalation

Move affected person to fresh air at once. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.

## Adhesion Promoter

<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention immediately.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

<b>Inhalation</b>	There may be irritation of the throat with a feeling of tightness in the chest. May cause an asthma-like shortness of breath.
<b>Ingestion</b>	Overexposure may cause the following adverse effects: Unconsciousness. Nausea, vomiting.
<b>Skin contact</b>	There may be irritation and redness at the site of contact. An itchy rash may occur at the site of contact.
<b>Eye contact</b>	There may be pain and redness.

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

<b>Notes for the doctor</b>	If exposed or concerned get medical advice/attention.
<b>Specific treatments</b>	Eye bathing equipment should be available on the premises.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Alcohol-resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemicals, sand, dolomite etc.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

<b>Specific hazards</b>	May explode when heated or when exposed to flames or sparks. Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours. May form explosive or toxic mixtures with air. May explode when heated or when exposed to flames or sparks. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers.
-------------------------	--

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. Cool containers exposed to flames with water until well after the fire is out. Move containers from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Use water spray to reduce vapours. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	Evacuate area. Shut off all sources of ignition.
-----------------------------	--

## Adhesion Promoter

**For non-emergency personnel** Follow instructions given by emergency personnel.

**For emergency responders** Refer to this MSDS.

### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Contain the spillage using bunding. Avoid release to the environment. Alert the neighbourhood to the presence of fumes or gas.

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

**Methods for cleaning up** Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Absorb small quantities with paper towels and evaporate in a safe place. Leave small quantities to evaporate, if safe to do so. Do not allow material to enter confined spaces, due to the risk of explosion. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Avoid contact with the following materials: Acids. Moisture. Read and follow manufacturer's recommendations. Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist.

**Advice on general occupational hygiene** Take off contaminated clothing and wash it before re-use.

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

**Storage precautions** Keep away from oxidising materials, heat and flames. May attack some plastics, rubber and coatings. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

**Storage class** Flammable liquid storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

**DNEL** No data available.

**PNEC** No data available.

### 8.2. Exposure controls

## Adhesion Promoter

### Protective equipment



#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Work in fume cupboard.

#### Eye/face protection

Wear chemical splash goggles.

#### Hand protection

Wear protective gloves made of the following material: Neoprene. Nitrile rubber.

#### Other skin and body protection

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station and safety shower. Wear appropriate clothing to prevent any possibility of skin contact. Wear appropriate clothing to prevent repeated or prolonged skin contact.

#### Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated. Contaminated clothing should be placed in a closed container for disposal or decontamination. Warn cleaning personnel of any hazardous properties of the product.

#### Respiratory protection

Wear a full facepiece respirator fitted with the following cartridge: Organic vapour filter.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Alcoholic.
Odour threshold	Data lacking.
pH	Data lacking.
Melting point	-89°C
Initial boiling point and range	82°C @
Flash point	12°C CC (Closed cup).
Evaporation rate	2.83 (ethanol = 1)
Evaporation factor	Data lacking.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 12.7 Lower flammable/explosive limit: 2
Other flammability	Data lacking.
Vapour pressure	44 mm Hg @ °C
Vapour density	2.1
Relative density	0.79 @ °C
Bulk density	Data lacking.
Solubility(ies)	Miscible with water. Miscible with the following materials: Alcohols. Ether.
Partition coefficient	Data lacking.
Auto-ignition temperature	399°C

## Adhesion Promoter

<b>Decomposition Temperature</b>	Data lacking.
<b>Viscosity</b>	2.8 cP @ 20°C
<b>Explosive properties</b>	Data lacking.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	There are no chemical groups present in the product that are associated with oxidising properties.

### 9.2. Other information

<b>Refractive index</b>	1.37
<b>Molecular weight</b>	60.1
<b>Volatility</b>	100

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	Stable under recommended transport or storage conditions.
-------------------	---

### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
------------------	---

### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Will not polymerise.
---	----------------------

### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid contact with strong oxidising agents. Avoid heat, flames and other sources of ignition.
----------------------------	---

### 10.5. Incompatible materials

<b>Materials to avoid</b>	Strong oxidising agents.
---------------------------	--------------------------

### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).
---	--

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<b>Other health effects</b>	There is no evidence that the product can cause cancer.
-----------------------------	---

### Skin corrosion/irritation

<b>Skin corrosion/irritation</b>	Not irritating.
----------------------------------	-----------------

### Serious eye damage/irritation

<b>Serious eye damage/irritation</b>	Causes eye irritation.
--------------------------------------	------------------------

### Respiratory sensitisation

<b>Respiratory sensitisation</b>	Not sensitising.
----------------------------------	------------------

### Skin sensitisation

<b>Skin sensitisation</b>	Not sensitising.
---------------------------	------------------

### Germ cell mutagenicity

## Adhesion Promoter

<b>Genotoxicity - in vitro</b>	This substance has no evidence of mutagenic properties.
<b>Genotoxicity - in vivo</b>	This substance has no evidence of mutagenic properties.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	There is no evidence that the product can cause cancer.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	This substance has no evidence of toxicity to reproduction.
<b>Reproductive toxicity - development</b>	No evidence of reproductive toxicity in animal studies.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not anticipated to present an aspiration hazard, based on chemical structure.
<b><u>Inhalation</u></b>	
<b>Inhalation</b>	Vapours in high concentrations are anaesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.
<b><u>Ingestion</u></b>	
<b>Ingestion</b>	Swallowing concentrated chemical may cause severe internal injury.
<b><u>Skin contact</u></b>	
<b>Skin contact</b>	Contains components which may penetrate the skin. Prolonged contact may cause redness, irritation and dry skin.
<b><u>Eye contact</u></b>	
<b>Eye contact</b>	Irritation of eyes and mucous membranes.
<b><u>Acute and chronic health hazards</u></b>	
<b>Acute and chronic health hazards</b>	Exposure; This chemical has good warning properties. Gas or vapour is harmful on prolonged exposure or in high concentrations. Symptoms following overexposure may include the following: Irritation of eyes and mucous membranes. Toxic through skin absorption (percutaneous). Narcotic effect. A single exposure may cause the following adverse effects: Central nervous system depression. May cause chemical eye burns. Swallowing concentrated chemical may cause severe internal injury. Unconsciousness. Death.
<b><u>Route of entry</u></b>	
<b>Route of entry</b>	Inhalation Ingestion. Skin and/or eye contact
<b><u>Target organs</u></b>	
<b>Target organs</b>	Central nervous system Eyes Respiratory system, lungs Skin
<b><u>Medical symptoms</u></b>	
<b>Medical symptoms</b>	Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. May cause suffocation. Skin irritation. Nausea, vomiting. Unconsciousness, possibly death. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Behavioural changes. Hypotension (low blood pressure). Dizziness.
<b><u>Medical considerations</u></b>	
<b>Medical considerations</b>	Convulsions. Central nervous system depression.

### SECTION 12: Ecological Information

**Ecotoxicity** Not regarded as dangerous for the environment.

#### **12.1. Toxicity**

**Toxicity** LOW

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >100 mg/l, Algae

#### **12.2. Persistence and degradability**

## Adhesion Promoter

**Persistence and degradability** No data available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Data lacking.

**Partition coefficient** Data lacking.

### 12.4. Mobility in soil

**Mobility** Highly volatile.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** If this product becomes waste it is to be treated as hazardous waste. Any other constituents or contaminants in the waste stream must be taken into account when classifying the waste. In the EU, the European Waste Catalogue Code to be assigned is dependant on the processes giving rise to the waste. In the absence of any such processes having taken place EWC 140603\* (other solvents and solvent mixtures) may be used. Hazardous waste must be suitably contained, stored, packaged and transported, see section 7 and 4 for such details. In the UK only waste carriers registered with the Environment Agency may transport waste.

**Disposal methods** Waste and residues must be disposed of in accordance with national regulatory requirements.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 1219

**UN No. (IMDG)** 1219

**UN No. (ICAO)** 1219

**UN No. (ADN)** 1219

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** ISOPROPANOL (ISOPROPYL ALCOHOL)

**Proper shipping name (IMDG)** ISOPROPANOL (ISOPROPYL ALCOHOL)

**Proper shipping name (ICAO)** ISOPROPANOL (ISOPROPYL ALCOHOL)

**Proper shipping name (ADN)** ISOPROPANOL (ISOPROPYL ALCOHOL)

### 14.3. Transport hazard class(es)

**ADR/RID class** 3

**ADR/RID classification code** F1

**ADR/RID label** 3

**IMDG class** 3

**ICAO class/division** 3



## Adhesion Promoter

ADN class 3

### Transport labels



### 14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ADN packing group II

ICAO packing group II

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

EmS F-E, S-D

ADR transport category 2

Emergency Action Code •2YE

Hazard Identification Number 33  
(ADR/RID)

Tunnel restriction code (D/E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Not applicable.

## SECTION 15: Regulatory information

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

**National regulations** Classification, Packaging and Labelling Regulations 1984.  
Highly Flammable Liquid Regulations 1972.  
Health and Safety at Work etc. Act 1974 (as amended).  
The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

### 15.2. Chemical safety assessment

## SECTION 16: Other information

**General information** Please ensure that this Safety Data Sheet is passed onto the relevant person(s) in your company, who are capable of acting on the information given.

## Adhesion Promoter

<b>Key literature references and sources for data</b>	Handbook of Toxic and Hazardous Chemicals and Carcinogens, Sittig, 1985. Material Safety Data Sheet, Misc. manufacturers. Sigma-Aldrich Library of Chemical Safety Data. Edition 2, 1988. The Condensed Chemical Dictionary, Hawley, 11th. edition, 1987. NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards, 1981. Suspect Chemicals Sourcebook, Roytech Publications, 1985. The Firefighter's Handbook of Hazardous Materials, Maltese Ent. 1984. Emergency Handling of Hazardous Materials in Surface Transportation, 1981. Rapid Guide to Hazardous Chemicals in the Workplace, NI Sax, 1986. IPCS via ILO Croner's :Substances Hazardous to the Environment.2005. www.msdsolutions.com Sigma Aldrich msds Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax, 1984. OSHA Air Contaminants - Permissible Exposure Limits (Title 29). Hazardous Materials, Emergency Response Guidebook, DOT-P 5800.3, 1984. NIOSH/OSHA Pocket Guide to Chemical Hazards, 1978. Chemical Hazards of the Workplace, Proctor & Hughes, Lippincott, 1978 Threshold Limit Values and Biological Exposure Indices for 1985-86. Chemical Safety Data Guide. Bureau of National Affairs, 1985. NFPA49. Hazardous Chemical Data, 1975. The Merck Index, 11. edition, 1989.
<b>Revision comments</b>	GHS update
<b>Issued by</b>	Nicola Dobson, R+D Supervisor
<b>Revision date</b>	06/07/2017
<b>Revision</b>	5
<b>Supersedes date</b>	15/02/2016
<b>SDS number</b>	20902
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
<b>Signature</b>	N Dobson

This Safety Data Sheet is compiled in accordance with the legal requirements set by EC 1907/2006 based on information available on 1st June 2007 (date of entry in force). Information not yet completed in this SDS depends on information yet to be received from suppliers following time-scales allowed for in the regulations and for further guidance that will be made available after the onset of the REACH regulations. The Data contained in this data sheet has been supplied as required by Chemicals (Hazard Identification and Packaging) Regulations 1994, for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of acting on the information. No representation, guarantee or warranty, expressed or implied, is made as to the accuracy or reliability of this information. Nor can it be assumed that all necessary warnings or precautionary measures are given and the information may not be valid for this material when used in conjunction with any other material or any other process.