

Safety Data Sheet

Version 4.0

Revision Date: 07/01/2020

This document is for information only, provided voluntarily and not subsequent to regulatory requirement

1. Product and Company Identification

A) Product Name: HANEX SOLID SURFACES

B) Recommended use of the chemical and restrictions on use: Interior finishing materials (Kitchen Surfaces, Counter Surfaces, Inner wall finishing)

C) Manufacturer/Supplier/Distributor Information

- Name: Hyundai L&C Corporation

- Address

1) H.Q: 13F, East Central Tower, 1077, Cheonho-daero, Gangdong-gu, Seoul, Korea

2) Plant: #37 Bukanggeumho-ro, Bukang-myun, Sejong, Korea

2. Hazards Identification

A) Hazard Risk Classification: N/A

B) Label elements including precautionary statements

Symbol: N/A Signal Word: N/A

Hazard Risk Statement: N/A Precautionary Statement: N/A

C) Other Hazard Risk which is not included in the classification criteria (NFPA)

Health: 1 Fire: 1 Reactivity: 0

3. Composition/Information on Ingredients

Chemical Name	Other Name	CAS No.	Content (%)
Poly Methyl Methacrylate	-	9011-14-7	10
Aluminium Trihydrate	-	21645-51-2	60
Methyl Methacrylate	-	80-62-6	25
Copolymer Colorants	Toner	-	< 5

Hanex is produced through the chemical combination of under ingredients, and the individual possibility for bareness of each ingredient is rare.



4. First Aid Measures

- A) Eye contact: Wash with large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Get medical attention, if needed
- B) Skin contact: Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains
- C) Ingestion: If vomiting occurs, keep head lower than hips to help prevent aspiration.

Get medical attention, if needed

5. Fire-Fighting Measures

- A) Flammable properties: "HANEX" can be combusted only with difficulty
- B) Extinguishing media: Water, Dry chemical, CO2
- C) Hazardous gases/vapors produced in fire are carbon monoxide, methyl methacrylate, aldehydes
- D) Fire fighting instructions
 - 1) Wear self-contained breathing apparatus
 - 2) Keep personnel removed and upwind of fire

6. Accidental Release Measures

- A) Safeguard (Personnel): Use appropriate personal protective during clean up
- B) Spill cleanup: Recover undamaged and minimally contaminated material for reuse and reclamation

7. Handling and Storage

A) Handling (Personnel):

Avoid breathing dust.

Avoid breathing fumes generated during sawing, routing or drilling

B) Storage: Store in a dry and cool place

8. Exposure Controls and Personal Protection

- A) Chemical exposure standard, biological exposure standard: No information is available
- B) Engineering controls (ventilation):

Use ventilation that is adequate to keep employee exposure to air borne concentration below exposure limits

C) Personal protection

Protective equipment: Eye/Face Protection

Wear safety glasses during operations such as sawing, sanding, drilling or routing



Use safety gloves, earplug and safety shoes

9. Physical and Chemical Properties:

A) Appearance: A board

B) Smell: Nothing

C) pH: N/A

D) Melting Point/Freezing point: N/A

E) Boiling point and range: N/A

F) Specific Gravity: 1.6 ~ 1.8

G) Vapor Pressure: N/A

H) Vapor Density: N/A

I) Solubility: Insolubility

J) Oder Threshold: N/A

K) Evaporation rate: N/A

L) Explosive: N/A

10. Stability and Reactivity

A) Pyrolysate: Acrylate vapor release because of frictional heat(Saw)

B) Toxic decomposition product: CO, Acrylate monomers, smog

C) Toxic reaction: N/A

D) Other information: In the presence of an ignition source is a potential dust explosion hazard

1) Breath equipment: Use breathing equipment when it's poorly ventilated

2) Safety gloves: Use safety gloves

3) Personal protection: Use earplug and safety shoes

11. Toxicological Information

A) Possible exposed path

1) Acute breathe toxic: Yes (Dust)

2) Acute oral toxic: No

3) Skin contact: Yes

4) Eye contact: Yes

B) Physical, chemical and toxicological symptom: No information is available



- C) Influence by short-term and Long-term exposure
 - 1) Acute toxic
 - Oral: N/A
 - Skin: N/A
 - Inhalation: Inhalation irritant caused by heated acrylate vapor
 - 2) Skin: Skin irritant caused by heated acrylate vapor
 - 3) Eye: Eye irritant caused by heated acrylate vapor
 - 4) Inhalation irritant: No information is available
 - 5) Skin irritable substance: No information is available
 - 6) Carcinogenic substance
 - IARC: 3 (non-classified)
 - ACGIH: non-classified
 - 7) Reproductive substance: No information is available
 - 8) Organ, whole body toxic substance (once exposure): No information is available
 - 9) Organ, whole body toxic substance (repeated exposure): No information is available

12. Ecological Information

A) Biodegradation: N/A

B) Bioaccumulation: N/A

C) Aquatic Toxicity: N/A

13. Disposal Considerations

- A) Dispose in accordance with federal, state and local regulation.
- B) The owner of the material is responsible for proper waste disposal
- C) Caution: Use breathing equipment to avoid breathing dust

14. Transport Information

- A) Product is not classified for any mode of transportation
- B) Caution: Flat-Pallet Stacking

15. Regulatory Information

- A) Not classified as hazardous according to criteria of occupation safety and health acts
- B) Not classified as hazardous according to criteria of toxic chemicals control act



C) National regulatory information

1) USA regulation: TSCA registration

2) Maleficence: N/A

16. Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information given is intended only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

It is the exclusive responsibility of the recipient of our product to find out the applicable laws and regulations prior to using the product and to comply with them in all respects. Please note that applicable national and international laws and regulations may change and it is the responsibility of the recipient to follow such changes.

This information is based on technical information deemed reliable and is subject to revision as additional information is made available.





1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name: Hanex Acrylic Joint Adhesive (Component A)

Supplier: JK TECH Co. Ltd #102

Seongji-building, 6

Dangsan-Dong 2 Ga, Yeongdeungpo-Gu,

Seoul, South Korea

Telephone: +82-2- 2636-7166 Telefax: +82-2- 2636-7167

Email address: jkc7237@naver.com

Emergency telephone number: +82-2- 2636-7166

Use of the Substance/Preparation: For professional use

Function: Adhesive for solid surface

2. HAZARDS IDENTIFICATION





Inflammable

Irritant

Main Hazards

Harmful if swallowed.

Risks of serious damage to eyes.

Health Effects-Eyes

Liquid or mist will cause severe conjunctiva irritation and corneal damage.

Health Effects-Skin

Material may cause irritation, repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.

Health Effects-Ingestion

Swallowing may have the irritation of mouth, throat and digestive tract, nausea, difficulty with breathing, lung damage.

Health Effects-Inhalation

Low volatility makes acute effects unlikely at ambient temperatures.





3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on ingredients / Hazardous components

 Polymethyl Methacrylate
 20~50%
 CAS-No.
 9011-14-7

 Methyl Methacrylate
 30~70%
 CAS-No.
 80-62-6

 Alumina Trihydrate
 10~30%
 CAS-No.
 21645-51-2

Xi - R36/38/37-43

4. FIRST AID MEASURES

General advice

Remove contaminated or saturated clothing.

Inhalation

Move to fresh air. Oxygen or artificial respiration if needed. Consult physician after significant exposure.

Skin contact

Wash off immediately with soap and plenty of water.

Eye contact

Rinse thoroughly with plenty of water at least 18 minutes and consult a Physician. Keep eye wide open while rinsing.

Ingestion

Never give anything by mouth to unconscious person. Rinse mouth.

Ingest activated charcoal. Call a physician immediately.

Notes to physician

If required, therapy of irritative effect.

If substance has been swallowed:

Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear.

If necessary, aspirate leftover substance.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use dry chemical, CO2, Water spray or "alcohol" foam.

Extinguishing media which must not be used for safety reasons

High volume water jet.

Special Hazards

This product may give rise to hazardous fumes in a fire.

Protective Equipment

Wear self contained breathing apparatus.





6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions

Do not let product enter drains.

Methods for cleaning up

Soak up with inert absorbent material. Clean with detergents. Avoid solvents.

7. HANDLING AND STORAGE

Handling

Technical measures/Precautions

Provide sufficient air exchange and/or exhaust in work rooms. Keep product and empty container away from heat and sources of ignition. Take precautionary measures against static discharges.

Storage

Technical measures/Storage conditions

Keep container tightly closed. Keep in a well-ventilated place. Incompatible products not applicable. Packing material not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment Respiratory protection

Repeated and prolonged exposure to solvents may cause brain and nervous system damage. It is good practice in industrial hygiene to avoid contact with solvents by using appropriate protective measures whenever possible.

Hand protection

Solvent-resistant gloves.

Eye protection

Safety glasses.

Hygiene measures

Keep away from food, drink and animal feeding stuffs. Wash hands before Breaks and at the end of workday.

Exposure controls

National occupational exposure limits

•Methyl-Methacrylat
CAS-Nr. . 80-62-6 EC-Nr. 201-297-1
TLV-TWA=100 ml/m3=410 mg/m3/A4/ACGIH (1997)







9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: liquid
Color: various
Odour: acrylic

PH: not applicable Flash point: 10°C (closed up)

Vapour pressure (20°C): 39hps Auto ignition temperature: 430°C

Relative density:

Water Solubility:

Viscosity:

Explosion limits:

1.20kg/l - 1.24kg/l

partly miscible

no data available

-lower 2.1 vol. %

-upper 12.5 vol. %

10. STABILITY AND REACTIVITY

Conditions to avoid

No decomposition if stored and applied as directed.

Hazardous decomposition products:

Methyl methacrylate monomer.

Further information

Vapours are heavier than air and may spread along floors.

Vapours may from explosive mixtures with air.

11. TOXICOLOGICAL INFORMATION

Repeated and prolonged exposure to solvents may cause brain and nervous system damage.

Acute toxicity

Methyl methacrylate

LD50/oral/rac = 7872 mg/kg, RTECS, 47796 Local effects not applicable.





12. ECOLOGICAL INFORMATION

Mobility

The product will not dissolve in water.

Persistence/Degradability

The product is expected to be partially or slowly biodegradable.

Bio-accumulation

The product is not expected to bioaccumulation.

Ecotoxicity

No data.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

Do not allow material to contaminate ground water system.

Contaminated packaging

Can be incinerated, when in compliance with local regulations.

14. TRANSPORT INFORMATION

UN-NO.: 1133

ADR/RID

Class: 3 TREM-CARD: 30G80

Proper shipping name: Adhesives

ICAO

UN/ID NO.: 1133 Packing group: III

Proper shipping name: Adhesives

IMO

Class: 3 Packing group: III

Pms: 3 - 05 Proper shipping name: Adhesives Class: 3

Item: 5 (C)

HI/UN-NO: 1133

ADR/RID=Labels: 3

ICAO-Labels: Flammable liquid

IMDG-Page: 3174

IMO-Lables: Flammable liquid

MPAG: 330





15. REGULATORY INFORMATION

The product is classified and labeled in accordance with EC-Directive 88/379.

Symbol(s): Xi - irritant, F - Rightly flammable

Contents: methyl methacrylate
R-phrase: R11 - Rightly flammable

R/36/37/38 - Irritating to eyes, respiratory system and skin

R43 - May cause sensitization by skin contact

S-phrase: S16 - Keep away from source of ignition, no smoking

S23 - Do not breathe vapour

S24/25 - Avoid contact with skin and eyes

S37 - Wear suitable gloves

S51 - Use only in well ventilated areas

16. OTHER INFORMATION

When used in a mixture, read the labels and safety data sheet of all components. END USE: adhesives

Do not use in medical applications involving permanent implantation in the human body.

The information provided in this safety data sheet is correct to the best of our knowledge. Information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.