

SECTION I : IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

• Product identifier name of the product

Substance Name

HIKOREZ[®] A-1100

Chemical family

Petroleum hydrocarbon resin

Cas number

64742-16-1

EC Number

265-116-8

Reach registration number

Polymer exempt

• Relevant identified uses of the substance or mixture and uses advised against :

Identified uses

Additive for adhesives, paints, coatings, inks

Uses advised against

None known

• Details of the supplier of the safety data sheet

Company name

KOLON INDUSTRIES

Address

9th FL, One&Only tower, Magokdong-ro 110,
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Telephone / Fax

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E-mail address

gilee74@kolon.com

• Emergency telephone

For emergency health, safety & environmental information

(82) 2 3671 6124

SECTION 2 : HAZARDS IDENTIFICATION

• Classification of the substance or mixture

(EC) No 1272/2008[CLP]

Not classified as dangerous for supply/use.

• **Label elements**

Hazard pictograms

None

Signal word

None

Hazard statements

None

Additional precautionary statements

None

• **Other hazards**

None

SECTION 3 : COMPOSITION, INFORMATION ON INGREDIENTS

• **General information**

Component	Cas number	EC No	Weight % range
Petroleum hydrocarbon resin	64742-16-1	265-116-8	>99.8
Stabilizer	Proprietary	Proprietary	<0.2

• **Classification**

Component	Classification
Petroleum hydrocarbon resin	CLP : Not classified
Stabilizer	Proprietary

SECTION 4 : FIRST AID MEASURES

• **Description of first aid measures**

After eye contact

Get medical attention immediately.

After skin contact

Get medical attention if needed.

Dry and wash thoroughly contaminated clothing and shoes before reuse.

Remove contaminated clothing and shoes. Wash immediately skin.

With soap and water for at least 15 minutes.

After inhalation

Give artificial respiration if victim is not breathing.

Move victim to non-contaminated place if side effect occurred.

Get medical attention immediately.

After ingestion

Get medical attention if swallowed amount of substances.

• **Most important symptoms and effects**

Both acute and delayed effects

Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

• **Indication of immediate medical attention and notes for physician hazards**

Hazards

Contact with molten substance/product may cause severe burns to skin and eyes.

Treatment

Treat symptomatically

SECTION 5 : FIRE FIGHTING MEASURES

• **Extinguishing media**

Suitable extinguishing media

Dry chemical, CO₂, water spray, regular foam

Unsuitable extinguishing media

Not available

• **Specific hazards arising from the substance or mixture**

Thermal decomposition products

Carbon oxides, nitrogen oxides

Fire and explosive hazard

It could be a slight fire hazard.

• **Advice for firefighters**

Move containers from fire area if you can do it without risks.

Do not scatter spilled material with high pressure water streams.

Mank an embankment for further processing.

Use extinguishing agent suitable for type of surrounding fire.

Avoid inhalation of the substance or combustion products.

Stay upwind and keep out of low areas.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

• Personal precautions, protective equipment and emergency procedures

- Keep away from waterways and sewers.
- Isolate exposed area.
- Keep unauthorized personnel away.
- Move materials to suitable containers for later disposal.

• Environmental precautions

Atomosphere

Not available

Land

Not available

Underwater

Do not release spillage into sewers.

• Methods and material for containment and cleaning up

Small spill

Dispose waste as waste synthesis resin(general waste).

Large spill

Collect and then recycle or dispose as a waste resin(general waste).

• Reference to other sections

See also section 8 and 13 of the safety data sheet.

SECTION 7 : HANDLING AND STORAGE

• Precautions for safe handling

- Prevent skin and eye contact
- Avoid contact in the molten state by heat and vapor inhalation.
- When static electricity generates, remove by grounding, cleaning work space, and using articles preventing electrification.

• Conditions for safe storage, including any incompatibilities

- Minimize generation and accumulation of dust store in a cool, dry, well-ventilated area.
- Avoid contact with straight sunlight.
- Store and use by regulation of central government and local self-government.

• Specific end use(s)

Adhesive, paints, coatings, inks

SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION

• Control parameters

Occupational exposure limits

ACGIH regulation

Not available

Biological exposure index

Not available

OSHA

TWA - 5 mg/m³ (respirable dust fraction)

NIOSH regulation

Not available

EU regulation

Not available

• Exposure controls

Appropriate engineering controls

Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations of vapor below their respective threshold limit value.

Check legal suitability of exposure level.

• Individual protection measures, such as personal protective equipment

Respiratory protection

Wear NIOSH or european standard EN 149 approved full or half face piece(with goggles) respiratory protective equipment when necessary.

Air respirator are required in case of high frequency use or severe exposure

Air-purifying respirator(high efficiency particulate absorber)

In case of unknown concentrations or urgent risk of life/health

Air-line mask(combination airline breathing mask)

Air-breathing apparatus(full facepiece)

Eye protection

Wear safety glasses(goggles) to protect eyes from dust.

Hand protection

Wear appropriate protective gloves to prevent exposure of skin.

Body protection

Wear appropriate protective clothing to prevent exposure of skin.

• Environmental exposure controls

Not available

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

▷ Information on basic physical and chemical properties

• Appearance

Description

Solid

Color

Yellow

• Odor

Petrochemical odor

• Odor threshold

Not available

• pH

Not available

• Melting point/freezing point

94~102°C(Softening point)

• Initial boiling point and boiling range

Not available

• Flash point

>270°C

• Evaporation rate

Not applicable

• Flammability(solid, gas)

Not available

• Upper/lower flammability or explosive limits

Not applicable

• Vapor pressure

Not applicable

- **Solubility(ies)**
Insoluble
- **Vapor density**
Not applicable
- **Specific gravity**
0.96~1.00
- **Partition coefficient(n-octanol/water)**
Not applicable
- **Auto ignition temperature**
Not available
- **Decomposition temperature**
Not available
- **Viscosity**
140 cps(200°C)
- **Explosive properties**
Not available
- **Oxidizing properties**
Not available
- **Molecular weight**
Approx. 2,000 (Mw)
- **Other information**
Surface tension
Not available

SECTION 10 : STABILITY AND REACTIVITY

- **Reactivity/chemical stability/possibility of hazardous reactions**
Stable under normal temperatures and pressures.
It will not occur polymerization reaction.
-

- **Condition to avoid**

Avoid heat, flames, sparks and other sources of ignition.

- **Incompatible materials**

Strong oxidizing agent

- **Hazardous decomposition products**

Carbon oxides, nitrogen oxides

SECTION 11 : TOXICOLOGICAL INFORMATION

- **Information on toxicology effects**

- Acute toxicity

- Oral : Not classified ATEmix = 6,994mg/kg

- (Petroleum hydrocarbon resin : LD₅₀ = 7,000mg/kg(mammal))

- (Antioxidant : LD₅₀>5,000mg/kg(rat))

- Dermal : Not classified

- (99.8% of this product consist of ingredients of unknown toxicity)

- (Petroleum hydrocarbon resin : Not available)

- (Antioxidant : LD₅₀>3,160mg/kg(rabbit))

- Inhalation(dust/mist) : Not classified

- (99.8% of this product consist of ingredients of unknown toxicity)

- (Petroleum hydrocarbon resin : Not available)

- (Antioxidant : LD₅₀(4hr)> 46mg/(rat))

- Skin corrosion/irritation

- Not classified

- (0.2% of this product consist of ingredients of unknown toxicity)

- (Petroleum hydrocarbon resin : Not classified)

- (Skin irritation test : not irritative based on primary irritation index = 0)

- (Antioxidant : Not available)

- Serious eye damage/irritation

- Not classified

- (99.8% of this product consist of ingredients of unknown toxicity)

- (Petroleum hydrocarbon resin : Not available)

- (Antioxidant : in test on eye irritation with rabbits, mild irritation was observed.)

- Respiratory sensitization

- Not available

- Skin sensitization

- Not classified

- (99.8% of this product consist of ingredients of unknown toxicity)

(Petroleum hydrocarbon resin : Not available)

(Antioxidant : The maximization test using guinea pigs resulted in negative.)

Carcinogenicity

Not available

IARC : Not available

NTP : Not available

OSHA : Not available

WISHA : Not available

ACGIH : Not available

Mutagenicity

Not available

Reproductive toxicity

Not classified

(99.8% of this product consist of ingredients of unknown toxicity)

(Petroleum hydrocarbon resin : Not available)

(Antioxidant : IN F2 reproductive toxicity test with rats for 10 months (dose : 0, 1,000, 3,000, 10,000ppm), NOAEL were 10,000 ppm.(GLP))

Specific target organ toxicity(single exposure)

Not available

Specific target organ toxicity(repeat exposure)

Not classified

(99.8% of this product consist of ingredients of unknown toxicity)

(Petroleum hydrocarbon resin : Not available)

(Antioxidant : NOAEL=10,000ppm(250mg/kg dw/day). When beagles were exposed repeatedly at doses of 0, 1,000, 3,000 and 10,000 ppm for 90 days, any toxic effects were not observed at the highest dose of 10,000ppm(1,500mg/kg bw/day)

Aspiration hazard

Not available

SECTION 12 : ECOLOGICAL INFORMATION

• Acute toxicity

Fish

Not classified

(99.8% of this product consist of ingredients of unknown toxicity)

(Petroleum hydrocarbon resin : Not available)

(Antioxidant : 96hr LC₅₀>100mg/l)

Invertebrates

Not available

Crustacea

Not classified

(99.8% of this product consist of ingredients of unknown toxicity)
(Petroleum hydrocarbon resin : Not available)
(Antioxidant : 24hr LC₅₀>86mg/l (OECD TG 202, GLP))

Algae

Not classified
(99.8% of this product consist of ingredients of unknown toxicity)
(Petroleum hydrocarbon resin : Not available)
(Antioxidant : 72hr EC₅₀>100mg/l (DIRECTIVE 87/302/EEC, GLP))

• Chronic toxicity

Fish

Not available

Crustacea

Not available

Algae

Not available

• Persistence and degradability

Persistence

Not readily degradable. And there were persistence possibility with insoluble.
(Petroleum hydrocarbon resin : Not available)
(Antioxidant : log Kow=23(25 °C) (DIRECTIVE 84/449/EEC, A6, GLP))

Degradability

Not available

• Bioaccumulative potential

Bioaccumulation

Not available
(99.8% of this product consist of ingredients of unknown toxicity)
(Petroleum hydrocarbon resin : Not available)
(Antioxidant : Bioaccumulative potential is low as a bioconcentration factor at 0.1mg/l based on the bioaccumulative test using carp(cyprinus carpio) (bcf<2.3))

Biodegradation

Non-biodegradable
(99.8% of this product consist of ingredients of unknown toxicity)
(Antioxidant : degraded 0% in the biodegradation test for 4 weeks.)
(OECD TG031C))

• Mobility in soil

Not available

- **Results of pbt and vPvB assessment**

Not available

- **Other adverse effects**

Not available

SECTION 13 : DISPOSAL CONSIDERATIONS

- **Disposal method**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

- **Disposal precaution**

Consider the require attentions in accordance with waste treatment management regulation.

SECTION 14 : TRANSPORT INFORMATION

- **UN number**

Not applicable

- **UN proper shipping name**

Not applicable

- **Transport hazard class**

Not applicable

- **Packing group**

Not applicable

- **Environmental hazards**

Not applicable

- **Information note**

In case of fire

Not applicable

In case of leakage

Not applicable

- **Transport in bulk according to annex II of marpol 73/78 and the ibc code**
Not applicable

SECTION 15 : REGULATORY INFORMATION

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU CLP 2008

Classification

Not regulated

Hazard statement codes

Not regulated

Precautionary statement codes

Not regulated

EU SVHC list

Not detected

EU Authorization list

Not applicable

EU Restriction list

Not applicable

- **Inventory status**

Country	Inventory	status
United states	TSCA	listed
Canada	DSL	listed
Europe	EINECS	listed
Australian	AICS/NICNAS	listed
Japan	MITI	listed
Korea	KECI	listed
Philippines	PICCS	listed
China	IECSC	listed

- **Foreign regulatory information**

U.S.A Management information

OSHA(29CFR1910.119)

Not regulated

CERCLA 103(40CFR302.4)

Not regulated

EPCRA 302(40CFR355.3)

Not regulated

EPCRA 304(40CFR355.4)

Not regulated

EPCRA 313(40CFR372.65)

Not regulated

• **Chemical safety assessment**

None

SECTION 16 : OTHER INFORMATION

• **Indication of changes**

Version

Rev. 4

Revision date

04 January 2021

• **Abbreviation and acronyms**

CLP : Classification labelling packaging regulation; regulation (EC) No 1272/2008

CAS no. : Chemical abstracts service number

DNEL : Derived no effect level

EC Number : EINECS and ELINCS number(see also einecs and elinecs)

EU : European union

OSHA : European agency for safety and health at work

PBT : Persistent, bioaccumulative and toxic substance

PNEC(s) : Predicted no effect concentration(s)

REACH : registration, evaluation, authorisation and restriction of chemicals
regulation EC No 1907/2006

SVHC : Substance of very high concern

vPvB : Very persistent and very bioaccumulative

• **Key literature reference and sources for data**

Korea occupational health&safety agency(SDS)

<http://www.kosha.or.kr>

The product analysis conducted by research institute of KOLON INDUSTRIES, Inc.
(chemical)

Korea testing and research institute for chemical industry skin irritation test data
(TBH-000125(2004), test method : the notice 1999 of korea food and drug
administration. Korea testing and research institute for chemical industry hazardous
chemical substance analysis data

The SDS data published by antioxidant manufacturer
Chemical risk information platform(CHRIP) - (<http://www.safe.nite.go.jp/english/db.html>)
Quantitative structure activity relation(QSAR)
International uniform chemical information database(IUCLID) - (<http://ecb.jrc.it/esis>)

• **Classification and procedure used to derive the classification for mixtures according to regulation (EC) No 1272/2008**

Not applicable [CLP]

• **Relevant r-phrases and/or h-statements(Number and full text)**

Not applicable

• **Training advice**

Do not handle until all safety precautions have been read and understood

• **Further information**

This safety data sheet is based on the legal provisions of the reach regulation, as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility.

ANNEX TO THE SDS

• **Exposure assessment**

HIKOREZ A-1100 is not classified for human health or the environment, is not a CMR and is not PBT or vPvB. An exposure assessment and the calculation of risk characterization ratios are therefore not required.

The information contained herein is to the best of our knowledge and belief accurate. Since SDS is to provide information on the health/safety/environment to users of the substance, data written here do not mean to ensure properties of matter or spec.