

SDS

(SAFETY DATA SHEET)

KOLON INDUSTRIES

15th Fl, KOLON Tower , Kolon-Ro 11,
GWACHEON-City,Gyeonggi-do,KOREA(427-709)
• Tel : 82-2-3677-6124 • Fax : 82-2-3677-6191

REVISION DATE : 1/MAY/2015, VERSION 12.

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

GHS PRODUCT IDENTIFIER

NAME

HIKOREZ T-3100

CHEMICAL FAMILY

PETROLEUM HYDROCARBON RESIN

CAS NUMBER

64742-16-1

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE:

RECOMMENDED USE

ADDITIVE FOR ADHESIVES, PAINTS, COATINGS, INKS

RESTRICTIONS ON USE

USED FOR RECOMMENDED USE.

MANUFACTURER/IMPORTER/SUPPLIER INFORMATION

SUPPLIER NAME

KOLON INDUSTRIES

ADDRESS

15TH FL, KOLON TOWER , KOLON-RO 11,
GWACHEON-CITY,GYEONGGO-DO,KOREA(427-709)

TELEPHONE / FAX

(82) 2 3677 6124 / (82) 2 3677 6191

EMERGENCY TELEPHONE

HEALTH, SAFETY & ENVIRONMENTAL INFORMATION

(82) 2 3677 6124

SECTION 2 : HAZARDS IDENTIFICATION

CLASSIFICATION

US OSHA's Hazard Communication Standard 2012

NOT CLASSIFIED

EL CLP (EC no. 1272/2008)

NOT CLASSIFIED

NFPA

HEALTH = 1 FIRE =1 REACTIVITY = 0 (0 = NO HAZARD, 1 = SLIGHT HAZARD)

SECTION 3 : COMPOSITION, INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>CAS NUMBER</u>	<u>Weight % Range</u>
PETROLEUM HYDROCARBON RESIN	64742-16-1	>99.8
STABILIZER	PROPRIETARY	<0.2

SECTION 4 : FIRST AID MEASURES

EYE CONTACT

FLUSH EYES WITH AMOUNT OF WATER FOR AT LEAST 15 MINUTES.
GET MEDICAL ATTENTION IMMEDIATELY.

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.

INHALATION

GIVE ARTIFICIAL RESPIRATION IF VICTIM IS NOT BREATHING.
MOVE VICTIM TO NON-CONTAMINATED PLACE IF SIDE EFFECT OCCURRED.
GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION

GET MEDICAL ATTENTION IF SWALLOWED AMOUNT OF SUBSTANCE.

OTHER NOTES FOR PHYSICIAN

THERE IS NOT SPECIFIC ANTIDOTE. TAKE FUNCTIONALLY MEASURES ACCORDING TO SYMPTOMS.

SECTION 5 : FIRE FIGHTING MEASURES

SUITABLE(AND UNSUITABLE) EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA

DRY CHEMICAL, CO₂, WATER SPRAY, REFULAR FOAM

UNSUITABLE EXTINGUISHING MEDIA

NOT ABAILABLE

IN CASE OF MAJOR FIRE AND LARGE QUANTITIES

USE REGULAR EXTINGUISHING AGENT AND FINE WATER SPRAY.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

THERMAL DECOMPOSITION PRODUCTS

CARBON OXIDES, NITROGEN OXIDES

FIRE AND EXPLOSIVE HAZARD

IT COULD BE A SLIGHT FIRE HAZARD.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

MOVE CONTAINERS FROM FIRE AREA IF YOU CAN DO IT WITHOUT RISK.
DO NOT SCATTER SPILLED MATERIAL WITH HIGH PRESSURE WATER STREAMS.
MAKE 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 AND PROTECTIVE PROCEDURES

ATMOSPHERE

NOT ABAILABLE

LAND

NOT ABAILABLE

UNDERWATER

DO NOT RELEASE SPILLAGE INTO SEWERS.

THE METHODS OF PURIFICATION AND REMOVAL

SMALL SPILL

DISPOSE WASTE AS WASTE SYNTHESIS RESIN(GENERAL WASTE).

LARGE SPILL

COLLECT AND THEN RECYCLE OR DISPOSE AS A WASTE RESIN
(GENERAL WASTE).

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 ELECTRICTIY GENERATES, REMOVE BY GROUNDING, CLEANING
WORK SPACE, AND USING ARTICLES PREVENTING ELECTRIFICATION.

CONDITIONS FOR SAFE STORAGE

MINIMIZE GENERATION AND ACCUMULATION OF DUST
STORE IN A COOL, DRY AND WELL-VENTILATED AREA.
AVOID CONTACT WITH STRAIGHT SUNLIGHT.
STORE AND USE BY REGULATION OF CENTRAL GOVERNMENT AND LOCAL
SELF-GOVERNMENT.

SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

OSHA

TWA - 5 mg/m³ (RESPIRABLE DUST FRACTION)

BIOLOGICAL EXPOSURE INDEX

NOT AVAILABLE

KOREAN OCCUPATION OF SAFETY AND HEALTH REGULATION

NOT AVAILABLE

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.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATOR

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.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

STATE

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 AVAILABLE

(DUST EXPLSIVENESS : MINIMUM COMPLEXING ENGERGY(M.I.E TEST) < 3mJ)

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

110 cps(200°C)

MOLECULAR WEIGHT

APPROX. 2090(Mw)

SECTION 10 : STABILITY AND REACTIVITY

CHEMICAL STABILITY AND 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 THE LIKELY ROUTES OF EXPOSURE

VAPOR BY POLYMERIZATION OR DECOMPOSITION MAY CAUSE IRRATATION OF EYES, SKIN, THROAT AND LUNG.

INFORMATION OF HEALTH HAZARDOUS

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 : LC₅₀(4hr)>46mg/l(RABBIT))

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 IRRITATIVEW 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 SENSITIZER

NOT AVAILABLE

SKIN SENSITIZATION

NOT CLASSIFIED
(99.8% OF THIS PRODUCT CONSIST OF INGREDIENTS OF UNKNOWN TOXICITY)
(PETROLEUM HYDROCARON RESIN : NOT AVAILABLE)
(ANITIOXIDANT : 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, 1000, 3000, 10000 ppm), 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, 1000, 3000 AND 10000 ppm FOR 90 DAYS, ANY TOXIC EFFECTS WERE NOT OBSERVED AT THE HIGHEST DOSE OF 10000 ppm(1,500mg/kg bw/day)

ASPIRATION HAZARD

NOT AVAILABLE

SECTION 12 : ECOLOGICAL INFORMATION

ECOLOGICAL 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 (BRACHYDANIO RERIO) (OECD TG 203, GLP))

CRUSTACEA

NOT CLASSIFIED

(99.8% OF THIS PRODUCT CONSIST OF INGREDIENTS OF UNKNOWN TOXICITY)
(PETROLEUM HYDROCARBON RESIN : NOT AVAILABLE)

(ANTIOXIDANT : 24hr LC₅₀>86mg/l (DAPHNIA MAGNA) (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 (SCENDESMUS SUBSPICATUS) (DIRECTIVE 87/302/EEC, GLP))

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

OTHER HAZARD 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 BY IATA REGULATION

UN PROPER SHIPPING NAME

NOT APPLICABLE BY IATA REGULATION

TRANSPORT HAZARD CLASS

NOT APPLICABLE BY IATA REGULATION

PACKING GROUP

NOT APPLICABLE BY IATA REGULATION

MARINE POLLUTANT

NOT APPLICABLE BY IATA REGULATION

INFORMATION NOTE

IN CASE OF FIRE

NOT APPLICABLE BY IATA REGULATION

IN CASE OF LEAKAGE

NOT APPLICABLE BY IATA REGULATION

SECTION 15 : REGULATORY INFORMATION

EU CLASSIFICATION

CLASSIFICATION

NOT AVAILABLE

RISK PHRASES

NOT AVAILABLE

SAFETY PHRASES

NOT AVAILABLE

EU RoHS REGULATION(DIRECTIVE 2002/96/EC)

THE FOUR HEAVY METALS AND BROMINATED FLAME RETARDANTS WERE
NOT DETECTED.

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

SARA CLASSIFICATION

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312(40CFR370.21) : NONE

SARA SECTION 313(40CFR372.65) : NONE

SUBSTANCE OF ROTERDAME PROTOCOL

NOT REGULATED

SUBSTANCE OF STOCKHOLME PROTOCOL

NOT REGULATED

SUBSTANCE OF MONTREAL PROTOCOL

NOT REGULATED

INVENTORY STATUS

TSCA(US TOXIC SUBSTANCES CONTROL ACT) : ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE **TSCA** INVENTORY.

DSL(CANADIAN DOMESTIC SUBSTANCES LIST) : ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE **DSL** INVENTORY.

EINECS(EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES) : THIS PRODUCT IS LISTED ON EINECS OR OTHERWISE COMPLIES WITH EINECS REQUIREMENTS.

AICS/NICNAS(AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES AND NATIONAL INDUSTRIAL CHEMICALS NOTIFICATION AND ASSESSMENT SCHEME) : ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE **AICS** OR OTHERWISE COMPLY WITH **NICNAS** INVENTORY.

MITI(JAPANESS HANDBOOK OF EXISTING AND NEW CHEMICAL SUBSTANCES) : ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE **MITI** INVENTORY.

KECI(KOREAN EXISTING CHEMICAL AND CHEMICAL SUBSTANCES) : ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE **KECI** INVENTORY.

PICCS(PHILIPPINES INVENTORY OF CHEMICAL AND CHEMICAL SUBSTANCES) ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE **PICCS** INVENTORY.

IECSC(INVENTORY OF CHEMICAL SUBSTANCES MANUFACTURED OR IMPORTED IN CHINA)

ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE **IECSC** INVENTORY

SECTION 16 : OTHER INFORMATION

INFORMATION SOURCE AND REFERENCES

KOREA OCCUPATIONAL HEALTH&SAFETY AGENCY(SDS)

([HTTP://WWW.KOSHA.NET](http://www.kosha.net))

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-000718(2003), TEST METHOD : THE NOTICE 1999-6 OF KOREA FOOD AND DRUG ADMINISTRATION

KOREA TESTING AND RESEARCH INSTITUTE FOR CHEMICAL INDUSTRY HAZARDOUS CHEMICAL SUBSTANCE ANALYSIS DATA

M.I.E TEST REPORT OF CHILWORTH IN USA

THE SDS DATA PUBLISHED BY ANTIOXIDANT MANUFACTURER

CHEMICAL RISK INFORMATION PLATFORM(CHRIP)

([HTTP://WWW.SAFE.NITE.GO.JP/ENGLISH/DB.HTML](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](http://ecb.jrc.it/esis))

ISSUING DATE

07 AUGUST 1996

REVISION NUMBER AND DATE

REVISION NUMBER

12TH

DATE OF THE LASTEST REVISION

1 MAY 2015

REASON FOR REVISION

CLASSIFICATION AND LABELLING OF CHEMICALS FOLLOWING GHS AND FOLLOWING THE NOTICE ABOUT PREPARING OF A SAFETY DATA SHEET.

PREPARED BY

G.D.KIM, MANAGER OF TECHNICAL TEAM,
ULSAN PLANT, KOLON INDUSTRIES

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.