

WKOLON INDUSTRIES

Kolon One&Only Tower, 110, Magokdong-ro, Gangseo-gu, Seoul, 07793, Korea

Tel: 82-2-3677-6120 Fax: 82-2-3677-6191

REVISION DATE: 04/JAN/2021, VERSION 3.

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

1.1 PRODUCT IDENTIFIER

NAME OF THE PRODUCT

SUBSTANCE NAME:

DLP-2

CHEMICAL FAMILY:

PETROLEUM HYDROCARBON RESIN

CAS NUMBER:

64742-16-1

EC NUMBER:

265-116-8

REACH REGISTRATION NUMBER:

POLYMER EXEMPT

1.2 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

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

COMPANY NAME:

KOLON INDUSTRIES

ADDRESS:

KOLON ONE&ONLY TOWER, 110, MAGOKDONG-RO GANGSEO-GU, SEOUL, 07793, KOREA

CONTACT TELEPHONE:

(82) 2 3677 6120

FAX:

(82) 2 3677 6191

E-MAIL ADDRESS:

hjk8502@kolon.com

1.4 EMERGENCY TELEPHONE:

FOR EMERGENCY HEALTH, SAFETY&ENVIRONMENTAL INFORMATION (82) 02 2199 1650

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

ANNEX I OF DIRECTIVE 67/548/EEC

NOT CLASSIFIED

(EC) NO 1272/2008 [CLP]

NOT CLASSIFIED

2.2 LABEL ELEMENTS

HAZARD PICTOGRAMS:

NOT APPLICABLE

SIGNAL WORD:

NO SIGNAL WORD

HAZARD STATEMENTS:

NO APPLICABLE

ADDITIONAL PRECAUTIONARY STATEMENTS:

NOT APPLICABLE

2.3 OTHER HAZARDS:

NONE KNOWN

SECTION 3: COMPOSITION, INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

GENERAL INFORMATION

 COMPONENT
 CAS NUMBER
 EC NO
 Weight % Range

PETROLEUM HYDROCARBON RE 64742-16-1 265-116-8 100

CLASSIFICATION

CHEMICAL NAME CLASSIFICATION

PETROLEUM HYDROCARBON RESIN DSD: THIS SUBSTANCE IS NOT CLASSIFIED

ACCORDING TO DIRECTIVE 67/548/EEC.

CLP: NOT CLASSIFIED

SECTION 4 : FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

AFTER EYE CONTACT:

FLUSH EYES WITH AMOUNT OF WATER FOR AT LEAST 15 MINUTES.

GET MEDICAL ATTENTION IMMEDIATELY.

AFTER SKIN CONTACT:

GET MEDICAL ATTENTION IF NEEDED.

DRY AND WASH THOROUGHLY CONTAMINATED CLOTHING AND SHOES BEFORE

REMOVE CONTAMINATED CLOTHING AND SHOES. WASH IMMEDICATELY 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 SUBSTANCE.

4.2 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.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND NOTES FOR PHYSICIAN HAZARDS

CONTACT WITH MOLTEN SUBSTANCE/PRODUCT MAY CAUSE SEVERE BURNS TO SKIN AND EYES.

TREATMENT

TREAT SYMPTOMATICALLY.

SECTION 5: FIRE FIGHTING MEASURES

5.1 EXITINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA

DRY CHEMICAL, CO2, WATER SPRAY, REFULAR FOAM

UNSUITABLE EXTINGUISHING MEDIA

NOT ABAILABLE

5.2 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.

5.3 ADVICE FOR FIREFIGHTERS

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

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

KEEP AWAY FROM WATERWAYS AND SEWERS.

ISOLATE EXPOSED AREA.

KEEP UNATHORIZED PERSONNEL AWAY.

MOVE MATERIALS TO SUITABLE CONTAINERS FOR LATER DISPOSAL.

6.2 ENVIRONMENTAL PRECAUTIONS

ATMOSPHERE

NOT ABAILABLE

LAND

NOT ABAILABLE

UNDERWATER

DO NOT RELEASE SPILLAGE INTO SEWERS.

6.3 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).

6.4 REFERENCE TO OTHER SECTIONS

SEE ALSO SECTIONS 8 AND 13 OF THE SATETY DATA SHEET.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

PREVENT THE INHALATION OF VAPOR OF PRODUCTS WEAR PROTECTIVE EQUIPMENT LISTED AT SECTION 8.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

KEEP AT TEMPERATURE NOT EXCEEDING 30oC KEEP CONTAINER AWAY FROM THE SUN

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS

ACGIH REGULATION

NOT AVAILABLE

BIOLOGICAL EXPOSURE INDEX

NOT AVAILABLE

OSHA REGULATION

NOT AVAILABLE

NIOSH REGULATION

NOT AVAILABLE

EU REGULATION

NOT AVAILABLE

OCCUPATIONAL EXPOSURE CONTROLS

NOT AVAILABLE

8.2 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:

ATMOSPHERIC LEVELS SHOULD BE MAINTAINED BELOW EXPOSURE LIMITS USE A NIOSH-MSHA APPROVED RESPIRATOR BASED ON CONTAMINATION LEVELS IN THE WORK PLACE

EYE PROTECTION:

WEAR SPLASH-PROOF OR DUST-RESISTANCE SAFETY GOGGLES

HAND PROTECTION:

WEAR APPROPRIATE PROTECTIVE GLOVES

BODY PROTECTION:

WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT EXPOSURE OF SKIN.

ENVIRONMENTAL EXPOSURE CONTROLS:

NOT AVAILABLE

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES **APPEARANCE DESCRIPTION:** LIQUID COLOR: **DARK YELLOW** ODOR: PETROCHEMICAL ODOR pH: NOT APPLICABLE FLASH POINT: >210°C FLAMMABILITY(SOLID, GAS): **NOT AVAILABLE** SOLUBILITY(ies): **IN WATER INSOLUBLE IN ORGANIC SOLVENT SOLUBLE** Tg -10~10°C VISCOSITY: 8,000~12,000 cps **MOLECULAR WEIGHT:** APPROX.300~400 9.2 OTHER INFORMATION: SURFACE TENSION: **NOT AVAILABLE** SECTION 10: STABILITY AND REACTIVITY 10.1 REACTIVITY/ CHEMICAL STABILITY/ POSSIBILITY OF HAZARDOUS REACTIONS: STABLE UNDER NORMAL TEMPERATURES AND PRESSURES. IT WILL NOT OCCUR POLYMERIZATION REACTION. **10.2 CONDITION TO AVOID:** AVOID HEAT, FLAMES, SPARKS AND OTHER SOURCES OF IGNITION. 10.3 INCOMPATIBLE MATERIALS: STRONG OXIDIZING AGENT 10.4 HAZARDOUS DECOMPOSITION PRODUCTS: CARBON OXIDES, NITROGEN OXIDES

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGY EFFECTS ACUTE TOXICITY

ORAL: NOT CLASSIFIED ATEmix = 7,000mg/kg **DERMAL**: NOT CLASSIFIED (NOT AVAILABLE)

INHALATION(DUST/MIST): NOT CLASSIFIED(NOT AVAILABLE)

SKIN CORROSION/IRRITATION:

NOT CLASSIFIED

SKIN IRRITATION TEST: NOT IRRITATIVEW BASED ON PRIMARY IRITATION

INDEX = 0

SERIOUS EYE DAMAGE/IRRITATION:

NOT CLASSIFIED(NOT AVAILABLE)

RESPIRATORY SENSITIZATION;

NOT AVAILABLE

SKIN SENSITIZATION;

NOT CLASSIFIED(NOT AVAILABLE)

CARCINOGENICITY;

NOT AVAILABLE

IARC: NOT AVAILABLE NTP: NOT AVAILABLE OSHA: NOT AVAILABLE WISHA: NOT AVAILABLE ACGIH: NOT AVAILABLE

MUTAGENICITY;

NOT CLASSIFIED(NOT AVAILABLE)

REPRODUCTIVE TOXICITY;

NOT CLASSIFIED(NOT AVAILABLE)

SPECIFIC TARGET ORGAN TOXICITY(SINGLE EXPOSURE);

NOT CLASSIFIED(NOT AVAILABLE)

SPECIFIC TARGET ORGAN TOXICITY(REPEAT EXPOSURE);

NOT CLASSIFIED(NOT AVAILABLE)

ASPIRATION HAZARD:

NOT CLASSIFIED(NOT AVAILABLE)

SECTION 12 : ECOLOGICAL INFORMATION

12.1 TOXICITY

ACUTE TOXICITY

FISH

NOT CLASSIFIED(NOT AVAILABLE)

<u>INVERTEBRATES</u>

NOT CLASSIFIED(NOT AVAILABLE)

CRUSTACEA

NOT CLASSIFIED(NOT AVAILABLE)

ALGAE

NOT CLASSIFIED(NOT AVAILABLE)

CHRONIC TOXICITY

<u>FISH</u>

NOT AVAILABLE

CRUSTACEA

NOT AVAILABLE

ALGAE

NOT AVAILABLE

12.2 PERSISTENCE AND DEGRADABILITY

PERSISTENCE

NOT AVAILABLE

DEGRADABILITY

NOT AVAILABLE

12.3 BIOACCUMULATIVE POTENTIAL

BIOACCUMULATION

NOT AVAILABLE

BIODEGRADATION

NOT AVAILABLE

12.4 MOBILITY IN SOIL

NOT AVAILABLE

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

NOT AVAILABLE

12.6 OTHER ADVERSE EFFECTS

NOT AVAILABLE

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

DISPOSAL METHODS

WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS.

PRECAUTIONS FOR DISPOSAL

CONSIDER THE REQUIRE ATTENTIONS IN ACCORDANCE WITH WASTE TREATMENT MANAGEMENT REGULATION.

SECTION 14: TRANSPORT INFORMATION

14.1 UN NUMBER:

NOT APPLICABLE

14.2 UN PROPER SHIPPING NAME:

NOT APPLICABLE

14.3 TRANSPORT HAZARD CLASS:

NOT APPLICABLE

14.4 PACKING GROUP:

NOT APPLICABLE

14.5 ENVIRONMENTAL HAZARDS:

NOT APPLICABLE

14.6 IMPORMATION NOTE

IN CASE OF FIRE:

NOT APPLICABLE

IN CASE OF LEAKAGE:

NOT APPLICABLE

14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:

NOT APPLICABLE

SECTION 15: REGULATORY INFORMATION

15.1 SATETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

EU REGULATORY INFORMATION

EU CLASSIFICATION

ANNEX I OF DIRECTIVE 67/548/EEC:

CLASSIFICATION:

NOT REGULATED

RISK PHRASES:

NOT REGULATED

SAFETY PHRASES:

NOT REGULATED

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:

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 FOREIGN REGULATORY INFORMATION

U.S.A MANAGEMENT INFORMATION(OSHA REGULATION 29CFR1910.119): NOT REGULATED

U.S.A MANAGEMENT INFORMATION(CERCLA REGULATION 103 40CFR302.4):
NOT REGULATED

U.S.A MANAGEMENT INFORMATION(EPCRA REGULATION 302 40CFR355.3):
NOT REGULATED

U.S.A MANAGEMENT INFORMATION(EPCRA REGULATION 304 40CFR355.4):
NOT REGULATED

U.S.A MANAGEMENT INFORMATION(<u>EPCRA REGULATION 313 40CFR372.65):</u>
NOT REGULATED

15.2 CHEMICAL SAFETY ASSESSMENT:

NONE.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGES

VERSION

Ver. 1

REVISION DATE

DECEMBER, 12TH, 2013

16.2 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

16.3 KEY LITERATURE REFERENCE AND SOURCES FOR DATA

KOREA OCCUPATIONAL HEALTH&SAFETY AGENCY(MSDS)

(HTTP://WWW.KOSHA.NET)

THE PRODUCT ANALYSIS CONDUCTED BY RESEARCH INSTITUTE OF KOLON INDUSTIRES, 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 HAZ-ARDOUS CHEMICAL SUBSTANCE ANALYSIS DATA

M.I.E TEST REPORT OF CHILWORTH IN USA

THE MSDS 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)

16.4 CLASSIFICATION AND PROCEDURE USED TO DERIVE THE CLASSIFICATION FOR MIXTURES ACCORDING TO REGULATION (EC) NO 1272/2008

[CLP]: NOT APPLICABLE

16.5 RELEVANT R-PHRASES AND/OR H-STATEMENTS(NUMBER AND FULL TEXT) NOT APPLICABLE

16.6 TRAINING ADVICE

DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD.

16.7 FURTHER INFORMATION

THIS SAFETY DATA SHEET(SDS) 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

HIKOTACK P-160 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 MSDS 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.