

MATERIAL SAFETY DATA SHEET

NAME OF PRODUCT : DURA MARK

CE Item #CEB54605

MSDS Rev.DATE: Sep.17.2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DURAMARK Retractable Permanent Marker - Black, Fine
SYNONYMS: N.A.
PRODUCT CODES: CEB54605

MANUFACTURER: MORRIS PEN CORPORATION.
DIVISION: Overseas sales division.
ADDRESS: 952 Dohwa-Dong, Nam-Gu, Incheon 402 060, South Korea

EMERGENCY PHONE: 82-32-777-0604
CHEMTREC PHONE: 82-32-777-0604
OTHER CALLS: 82-32-777-0664
FAX PHONE: 82-32-777-0634

CHEMICAL NAME: Mixture
CHEMICAL FAMILY: n.a.
CHEMICAL FORMULA: n.a.

PRODUCT USE: All-purpose marker for smooth porous and non-porous surfaces
PREPARED BY: Bora Yun.

SECTION 1 NOTES:

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT:</u>	<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>	<u>SARA 313 REPORTABLE</u>
Progan-1-01	71-23-8	50 – 100%		
1-methoxy-2-propanol	107-98-2	10 – 25%		
Bis(2-ethylhexyl) hydrogen phosphate	298-07-7	2.5 – 10%		
Solvent Black 7	8005-02-5	≤ 2.5%		
Formaldehyde, reaction products with N, N-dimethylbenzenamine and N-methylbenzenamine, oxidized	84281-86-7	≤ 2.5%		
Solvent Orange 3	495-54-5	≤ 2.5%		

ppm mg/m3

OSHA PEL-TWA:
OSHA PEL STEL :
OSHA PEL CEILING:

ACGIH TLV-TWA:
ACGIH TLV STEL:
ACGIH TLV CEILING:

SECTION 2 NOTES:

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

ROUTES OF ENTRY:

POTENTIAL HEALTH EFFECTS

EYES: n.a.
SKIN: n.a.
INGESTION: n.a.
INHALATION: n.a.

ACUTE HEALTH HAZARDS: n.a.
CHRONIC HEALTH HAZARDS: n.a.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: n.a.

CARCINOGENICITY

OSHA: ACGIH: NTP: IARC:
OTHER:

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: Rinse opened eye for several minutes under running water. Then consult a doctor

SKIN: Generally the product down not irritate the skin.

INGESTION: irritant

INHALATION: Supply fresh air; consult doctor in case of complaints.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: n.a.
(% BY VOLUME) LOWER: n.a.

FLASH POINT:n.a.

F:

C:

METHOD USED:

AUTOIGNITION TEMPERATURE:n.a.

|F:

C:

NFPA HAZARD CLASSIFICATION

HEALTH:n.a.

FLAMMABILITY: n.a.

REACTIVITY: n.a.

OTHER:n.a.

HMIS HAZARD CLASSIFICATION

HEALTH:n.a.

FLAMMABILITY: n.a.

REACTIVITY: n.a.

PROTECTION:n.a.

EXTINGUISHING MEDIA: Co2, sand, extinguishing powder.

SPECIAL FIRE FIGHTING PROCEDURES: No special measures required.

UNUSUAL FIRE AND EXPLOSION HAZARDS: n.a.

HAZARDOUS DECOMPOSITION PRODUCTS: n.a.

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Wear protective equipment. Keep unprotected persons away.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Keep ignition sources away – Do not smoke.

Protect against electrostatic charges.

OTHER PRECAUTIONS: Keep receptacle tightly sealed.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

VENTILATION :n.a.

RESPIRATORY PROTECTION:

EYE PROTECTION: Avoid contact with the eyes / Tightly sealed goggles

SKIN PROTECTION: Use protective gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WORK HYGIENIC PRACTICES :

* Components with limit values that require monitoring at the workplace:

[71-23-8 Propan-1-01]

REL: 500 mg/m³ , 200 ppm

REL: Short-term value: 625 mg/m³, 250 ppm,

Long-term value: 500 mg/m³, 200 ppm

Skin

TLV: Short-term value: (614) mg/m³, 250 ppm

Long-term value: 492 mg/m³, 250ppm

NIC-400; 984; NIC-A 3; delete Skin

[107-98-2 1-methoxy-2 propanol]

REL: Short-term value: 540 mg/m³, 150ppm

Long-term value: 360 mg/m³, 100ppm

TLV: Short-term value: 553 mg/m³, 150 ppm

Long-term value: 369 mg/m³, 100 ppm

EXPOSURE GUIDELINES: Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Fluid, Fine Black

ODOR: Characteristic

PHYSICAL STATE: Fluid

pH AS SUPPLIED:

pH (Other):

BOILING POINT:

F: 205

C: 96

MELTING POINT: undetermined

F:

C:

FREEZING POINT:n.a.

F:

C:

VAPOR PRESSURE (mmHg): 14 mm Hg

@

F: 68

C: 20

VAPOR DENSITY (AIR = 1): 0.850 g/cm³

@

F: 68

C: 20

SPECIFIC GRAVITY (H₂O = 1): n.d.

@

F:

C:

EVAPORATION RATE: n.a.

BASIS (=1): n.a.

SOLUBILITY IN WATER: n.d.

PERCENT SOLIDS BY WEIGHT: n.d.

PERCENT VOLATILE:

BY WT/
BY VOL @
F:
C:

VOLATILE ORGANIC COMPOUNDS (VOC):90.3% Organic solvents
WITH WATER: LBS/GAL
WITHOUT WATER: LBS/GAL

MOLECULAR WEIGHT: 6.1% Solids contents

VISCOSITY: n.d.

@
F:
C:

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

STABILITY: STABLE UNSTABLE
V

CONDITIONS TO AVOID (STABILITY): None anticipated

INCOMPATIBILITY (MATERIAL TO AVOID):None anticipated

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None anticipated

HAZARDOUS POLYMERIZATION: None anticipated

CONDITIONS TO AVOID (POLYMERIZATION): None anticipated

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Primary irritant effect:

- On the skin: No irritant effect.
- On the eye: Strong irritant with the danger of severe eye injury
- Sensitization: No sensitizing effects known.

The product shows the following dangers according to internally approved calculation methods for preparations: irritant

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

RCRA HAZARD CLASS: Disposal must be made according to official regulations.

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME:
HAZARD CLASS: 3
ID NUMBER: UN1263
PACKING GROUP: III
LABEL STATEMENT: 3

WATER TRANSPORTATION

PROPER SHIPPING NAME: PAINT
HAZARD CLASS: 3
ID NUMBER: 1263
PACKING GROUP: III
LABEL STATEMENTS: F-E, S-E

AIR TRANSPORTATION

PROPER SHIPPING NAME: 3
HAZARD CLASS: 13
ID NUMBER: 1263
PACKING GROUP: III
LABEL STATEMENTS: PAINT

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT):
71-23-8 Propan-1-01
107-98-2 1-methoxy-2 propanol
298-07-7 bis(2-ethylhexyl) hydrogen phosphate
495-54-5 solvent orange 3

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): N.D.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): N.D.

311/312 HAZARD CATEGORIES:
313 REPORTABLE INGREDIENTS:

STATE REGULATIONS: N.D.

INTERNATIONAL REGULATIONS:

-Technical Instructions (air):
Class: NK
Share in %: 90.3

SECTION 15 NOTES:

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

This information is based on our present knowledge. However, shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

PREPARATION INFORMATION:

DISCLAIMER: