SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER........................................ CANADA COLORS AND CHEMICALS LIMITED
152 KENNEDY ROAD SOUTH
BRAMPTON, ONTARIO
CANADA
L6W 3G4

PRODUCT NAME........................................ DIISO BUTYL KETONE

PRODUCT CODE........................................ 371104

CHEMICAL FORMULA................................ C9H18O.

CHEMICAL FAMILY...................................... KETONES.

MOLECULAR WEIGHT.................................. 100.16.

MATERIAL USE............................................ SOLVENT.

EMERGENCY PHONE NO...........................(416)-444-2112.

SECTION 02: HAZARDS IDENTIFICATION

SIGNAL WORD............................................ WARNING.

HAZARD CLASSIFICATION.......................... FLAMMABLE LIQUIDS — CATEGORY 3. SPECIFIC TARGET ORGAN TOXICITY — SINGLE EXPOSURE — CATEGORY 3.

HAZARD STATEMENT................................ H226 FLAMMABLE LIQUID AND VAPOUR. H335 MAY CAUSE RESPIRATORY IRRITATION.


OTHER HAZARDS...........................................

SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS | CAS # | WT. %
------------------------|-------|------
2,6-DIMETHYL-4-HEPTANONE | 108-83-8 | 80-96
4,6-DIMETHYL-2-HEPTANONE | 19549-80-5 | 4-20
2,6-DIMETHYL-4-HEPTANOL | 108-82-7 | <=2

SECTION 04: FIRST AID MEASURES

GENERAL ADVICE:..................................... CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. MOVE OUT OF DANGEROUS AREA.

IF INHALED:............................................ IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

IN CASE OF SKIN CONTACT:....................... WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.

IN CASE OF EYE CONTACT:......................... WASH EYES WITH COPIOUS AMOUNT OF WATER.
SECTION 04: FIRST AID MEASURES

IF SWALLOWED: DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN. DO NOT LEAVE VICTIM UNATTENDED.

SECTION 05: FIRE FIGHTING MEASURES

FLAMMABILITY: FLAMMABLE IN THE PRESENCE OF A SOURCE OF I GNTION WHEN THE TEMPERATURE IS ABOVE THE FLASH POINT. KEEP AWAY FROM HEAT/SPARK/OPEN FLAME/HOT SURFACE. NO SMOKING.

SUITABLE EXTINGUISHING MEDIA: SUITABLE FOR SURROUNDING FIRE. CARBON DIOXIDE, DRY CHEMICAL, ALCOHOL FOAM, WATER FOG.

HAZARDOUS COMBUSTION PRODUCTS: CARBON OXIDES.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL DURING A FIRE, SMOKE MAY CONTAIN THE ORIGINAL MATERIAL IN ADDITION TO COMBUSTION PRODUCTS OF VARYING COMPOSITION WHICH MAY BE TOXIC AND/OR IRRITATING.

SPECIAL PROCEDURES: EVACUATE HAZARD AREA. WEAR FULL PROTECTIVE EQUIPMENT INCLUDING A SELF-CONTAINED BREATHING APPARATUS. USE WATER TO COOL CONTAINERS.

SECTION 06: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: USE PERSONAL PROTECTIVE EQUIPMENT. AVOID BREATHING VAPORS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF I GNTION. EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF VAPOURS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN LOW AREAS.

ENVIRONMENTAL PRECAUTIONS: PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP: CONTAIN SPILLAGE AND THEN COLLECT WITH ELECTRICALLY PROTECTED CONTAINMENT AND CLEAN UP: VACUUM CLEANER OR BY WET-BRUSHING AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING MIST OR VAPOUR. WEAR PROTECTIVE EQUIPMENT DURING HANDLING. USE ADEQUATE VENTILATION. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE.

CONDITIONS FOR SAFE STORAGE: KEEP THE CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. USE OF NON-SPARKING OR EXPLOSION PROOF EQUIPMENT MAY BE NECESSARY, DEPENDING UPON THE TYPE OF OPERATION. STORE AWAY FROM INCOMPATIBLE MATERIALS. STORE IN A COOL AND WELL-VENTILATED AREA.

SECTION 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>TWA</th>
<th>ACGIH TLV STEL</th>
<th>OSHA PEL STEL</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-DIMETHYL-4-HEPTANONE</td>
<td>25 PPM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS: GOOD VENTILATION SHOULD BE PROVIDED TO KEEP VAPOUR AND MIST CONCENTRATIONS BELOW THE EXPOSURE LIMITS.

SKIN AND BODY PROTECTION: IMPERVIOUS CLOTHING. FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING. THE TYPE OF EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

RESPIRATORY PROTECTION: USE NIOSH APPROVED SUPPLIED-AIR RESPIRATOR.

EYE/FACE PROTECTION: SPLASH PROOF CHEMICAL GOGGLES. FACE SHIELD.

HYGIENIC MEASURES: USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING AND WASH THROROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

OTHER/TYPE: EYE WASH STATION AND SAFETY SHOWER SHOULD BE LOCATED NEAR THE WORK STATION.
SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: COLORLESS LIQUID.
ODOUR: MILD.
ODOUR THRESHOLD: NO DATA AVAILABLE.
PH: NO DATA AVAILABLE.
MELTING POINT/FREEZING POINT (°C): -46 °C.
BOILING POINT: 169 °C.
FLASH POINT (°C), METHOD: 49 (°C).
EVAPORATION RATE: NO DATA AVAILABLE.
FLAMMABILITY (SOLIDS AND GASES): NOT APPLICABLE.
UPPER FLAMMABLE LIMIT (% BY VOL.): 7.1.
LOWER FLAMMABLE LIMIT (% BY VOL.): 0.8.
VAPOURPRESSURE: 1 MM Hg @ 20°C.
VAPOUR DENSITY (AIR=1): 4.9.
SPECIFIC GRAVITY (WATER=1): 0.808.
SOLUBILITY IN WATER (% W/W): 0.1.
AUTO IGNITION TEMPERATURE: NO DATA AVAILABLE.
PARTITION COEFFICIENT: log Pow: 3.71.
N-OCTANOL/WATER DECOMPOSITION TEMPERATURE: NO DATA AVAILABLE.
VISCOSITY: 1.0 cP @ 20°C.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: NO DATA AVAILABLE.
CHEMICAL STABILITY: STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
POSSIBILITY OF HAZARDOUS REACTIONS: POLYMERIZATION WILL NOT OCCUR.
CONDITIONS TO AVOID: EXPOSURE TO ELEVATED TEMPERATURES CAN CAUSE PRODUCT TO DECOMPOSE.
INCOMPATIBLE MATERIALS: STRONG OXIDIZING AGENTS, STRONG ACIDS.
HAZARDOUS DECOMPOSITION: CARBON OXIDES.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS | LC50 | LD50
--- | --- | ---
2,6-DIMETHYL- 4-HEPTANONE | INHALATION-RAT-VAPOUR: >14.5 mg/L | ORAL-RAT-MALE: 6,899 mg/kg

ACUTE TOXICITY:
INHALATION LC50: SEE ABOVE.
INHALATION LD50: SEE ABOVE.
SKIN CORROSION / IRRITATION: PROLONGED SKIN CONTACT MAY CAUSE SKIN IRRITATION WITH LOCAL REDNESS. MAY CAUSE DRYING AND FLAKING OF THE SKIN.
SERIOUS EYE DAMAGE / EYE IRRITATION: MAY CAUSE SLIGHT EYE IRRITATION. MAY CAUSE SLIGHT CORNEAL INJURY.
REPRODUCTION TOXICITY: GUINEA PIG: NOT SENSITIZING.
CARCINOGENICITY: INVITRO GENETIC TOXICITY STUDIES WERE NEGATIVE.
STOT - SINGLE EXPOSURE: IN ANIMALS, EFFECTS HAVE BEEN REPORTED ON THE FOLLOWING ORGANS: KIDNEY, LIVER, LUNG.
STOT - REPEAT EXPOSURE: MAY CAUSE RESPIRATORY IRRITATION.
ASPIRATION HAZARD: MAY BE HARMFUL IF SWALLOWED AND ENTERS AIRWAYS.
POTENTIAL HEALTH EFFECTS: INHALATION: MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. INGESTION: MAY BE HARMFUL IF SWALLOWED. SKIN: MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. MAY CAUSE SKIN IRRITATION.
EYES: CAUSES EYE IRRITATION.

SECTION 12: ECOLOGICAL INFORMATION

PERSISTENCE AND DEGRADABILITY: READILY BIODEGRADABLE.
BIOACCUMULATIVE POTENTIAL: Log Pow: 3.71.
TOXICITY: TOXICITY TO FISH: LC50 - ONCORHYNCHUS MYKISS (RAINBOW TROUT) - 30 mg/L - 96H, EC50 - DAPHNIA MAGNA (WATER FLEA) - 37.2 mg/L - 48H.
MOBILITY IN SOIL: POTENTIAL FOR MOBILITY IN SOIL IS MEDIUM.
OTHER ADVERSE EFFECTS: NO DATA AVAILABLE.
SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENCED DISPOSAL COMPANY.

PACKAGING: DISPOSE OF AS UNUSED PRODUCT.

SECTION 14: TRANSPORT INFORMATION

UN NUMBER: 1157.
TDG CLASSIFICATION: 3.
PACKING GROUP: III.
PROPER SHIPPING NAME: DIISOBUTYL KETONE.
SPECIAL SHIPPING INSTRUCTIONS: REFER TO TRANSPORTATION OF DANGEROUS GOOD REGULATIONS.

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION: B3, D2B.
HPR COMPLIANCE: THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE HPR AND THE SDS CONTAINS ALL THE INFORMATION REQUIRED BY THE HPR.

SECTION 16: OTHER INFORMATION

N.AP. = NOT APPLICABLE
N.AV. = NOT AVAILABLE
REPAIRED BY: Regulatory Affairs
PREPARATION DATE: DEC 14/2016