trade name:	EDM Fluid 2
product code:	530658
supplier:	GS SKALN Oil Corporation (Korea) GS Kangnam Tower 679, Yoksam-dong,Kangnam-gu Seoul, Korea 135-080
routine inquiries:	+82-2-2005-6841~6
fax:	
chemical description:	Metal Working Fluid

components	cas no.	range in %
Hydrotreated mid-distillate	64742467	> 99

warning statements:	MAY BE HARMFUL IF INHALED OR ABSORBED THRU SKIN. LOW VISCOSITY PETROLEUM MIXTURE CAN CAUSE LUNG INJURY IF INGESTED AND ASPIRATED. CAUSES SKIN IRRITATION. COMBUSTIBLE. PROLONGED INHALATION OF VAPOR OR MIST MAY BE HARMFUL. OIL MIST MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT.
eyes:	May cause slight eye irritation, characterized by redness, tearing, or a burning sensation.
oral:	Expected to have slight acute toxicity by ingestion. Ingestion of this product and subsequent vomiting can result in aspiration into the lungs, causing chemical pneumonia and lung damage.
inhalation:	Breathing the vapour or mist at concentrations in air that exceed the ACGIH TLV, or in unusually high concentrations, as from exposure in poorly ventilated areas or confined spaces, may be irritating to the nose, throat and respiratory

	tract. Other symptoms of overexposure may include headache, nausea, dizziness and/or drowsiness. See 'Long Term Toxic Effects' and Section 11 for additional information.
skin:	May cause skin irritation. Prolonged or frequently repeated contact may cause more severe irritation or may cause the skin to become cracked or dry from the defatting action of this material.
long term toxic effects:	Cancer information available on this material or a component(s). See Section 11 for additional information.

eyes:	Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. If irritation persists, see a doctor.
skin:	Wash skin thoroughly with soap and water. If skin irritation persists or a rash develops as a result of excessive contact, see a doctor. Launder contaminated clothing.
ingestion:	Do not induce vomiting. Aspiration of the material can cause serious lung injury such as chemical pneumonia. Call a doctor immediately. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person.
inhalation:	If there are signs or symptoms as described in this MSDS due to breathing this material, move the person to fresh air. If breathing has stopped, apply artificial respiration. Call a doctor.
advice to doctor:	This product may present an aspiration hazard. See related comments in this MSDS. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

ignition temp. (degrees c):	Not Determined
flammable limits (% by volume):	1 - 6
flash point (degrees c):	> 93 (PMCC)
fire extinguishing agents:	According to the U.S. National Fire Protection Association Guide, use water fog, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapours and to provide protection for persons attempting to stop the leak.
explosion hazards:	Full body flame-resistant clothing and/or turn-out gear recommended for persons attempting leak or spill control and for fire fighting.

in case of spill: Stop the source of the leak or release and contain spill if possible. Ventilate area. Use respirator and protective clothing as discussed in this MSDS. Cover spill with a generous amount of inert absorbent. Use a stiff broom to mix thoroughly. Sweep up and place in a disposable container. Scrub contaminated area with detergent and water using a stiff broom. Pick up liquid with additional absorbent and place in a disposable container. Prevent contamination of groundwater or surface water.

Keep away from heat, sparks, and flame. Keep containers tightly closed. Handle and store in well-ventilated area and in accordance with local regulations regarding combustible liquids.

Empty containers retain residue (liquid and/or vapour) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum

reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

eyes:	Avoid eye contact. The wearing of chemical safety goggles or face shield is recommended.
skin:	Avoid contact with skin or clothing. Skin contact can be minimized by wearing impervious protective clothing including gloves. Protective clothing made from neoprene, nitrile, or n-butyl rubber is suitable in these applications. Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.
inhalation:	If operating conditions create airborne concentrations that are excessive and may exceed the exposure standard(s), the use of an approved respirator is recommended. Wear approved respiratory protection such as an organic vapour cartridge respirator with particulate prefilter. Use approved supplied air respiratory protection for cleaning large spills or upon entry into tanks, vessels, or other confined spaces.
ventilation:	Under normal applications of this product, general dilution ventilation is adequate.
exposure limits:	No ACGIH TLV exists for this material. SKALN recommends an daily 8- hour TWA of 100 ppm.

note : The following data may represent a range of approximate or typical values for products in the same family. Precise technical information is provided in Product Bulletins and can be obtained from your Marketing Representative.

appearance & odor:	Light amber liquid
boiling point (deg. c):	200 - 400
vapor pr. (mmhg @ 25 deg. c):	< 1
density (kg/l at 15 deg. c):	0.8500

vapor density (air = 1):	Not Determined
ph of undiluted product:	Not Applicable
solubility (water):	Negligible
percent volatile by volume:	Not Determined
evaporation:	Not Determined
viscosity (all product grades):	3 mm2/s @ 40 deg. C

hazardous polymerizations:	DO NOT OCCUR
products of combustion:	Carbon monoxide and carbon dioxide may be formed on burning in limited air supply.
conditions to avoid:	Heat, Strong Oxidizers

general:	Contains middle distillate. Middle distillates have caused skin cancer in laboratory animals following lifetime application to the skin. Brief or intermittent skin contact is not expected to cause adverse effects if it is washed thoroughly. Avoid prolonged or repeated skin contact or breathing of vapour or mist.

environmental effects:	This material or its component(s) may be toxic to aquatic organisms and should be kept out of sewage and drainage systems, and all bodies of water.

waste disposal:	Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.
remarks:	Releases of this product should be prevented from contaminating soil, and from entering drainage, sewer

systems, and all bodies of water.

transport of dangerous goods:	
UN Number:	Not Applicable
Dangerous Goods Class:	Not Applicable
Proper Shipping Name:	Not Applicable
Hazchem Code (Australia/NZ):	Not Applicable
Additional Information:	Transport in accordance with local regulations regarding combustible liquids. Although this material is not regulated by TDG, the flashpoint falls into the range that is regulated by the United States Department of Transportation (DOT) as a "Combustible Liquid" (UN1268).

respirator information:	Respirator users in Australia and New Zealand should comply with AS/NZS 1715/1716. Where local approval authority is absent, respirator users can refer to U.S. NIOSH, European Standard EU-149, or joint Australia-New Zealand AS/NZS 1715/1716 for guidance.

Thermal decomposition products may be formed during metal working operations or upon exposure to extreme heat or open flame. The products may be irritating to eyes, nose, throat and lungs. Metal oxide fumes may also be formed; exposure to fumes may cause flu-like symptoms, including nose and chest congestion, fever, tightness in the chest, and rapid heart rate. Symptoms usually disappear within several days.

To the best of our knowledge, the information provided in this MSDS document is correct. Access to this information is being provided via the Internet so that it can be made available to as many potential users as possible. We do not assume any liability

for consequences of the use of this information since it may be applied under conditions beyond our control or knowledge. Also, it is possible that additional data could be made available after this MSDS was issued. Certain hazards are described herein, however these may not be the only hazards that exist. All materials may present unknown hazards and should be used with caution. Customers are encouraged to review this information, follow precautions, and comply with all applicable laws and regulations regarding the use and disposal of this product. For specific technical data or advice concerning this product as supplied in your country please contact your local sales representative. The final determination of the suitability of any material is the sole responsibility of the user.

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