

Material Safety Data Sheet

Version SK-140415
Date of Last Revision 2014.04.15

1. PRODUCT AND COMPANY IDENTIFICATION

A. Product Name	ECOPRIME HF
B. Recommended use of the chemical and restrictions on use	
Recommended use	Use for fuel
Restrictions on use	No data
C. Supplier information	
Company name	SK Chemicals Co., Ltd.
Address	718, Cheoyong-ro, Nam-gu, Ulsan, 680-160 Rep. of KOREA
Emergency Telephone	+82-52-256-0121

2. HAZARDS IDENTIFICATION

A. Classification	Not classified
B. Label elements including precautionary statements	No pictogram required
C. Other Classifications(NFPA)	
HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component name	CAS #	Conc(%)
Palm Oil Methyl Ester	91051-34-2	<20
Oils, palm-	8002-75-3	<100
Beef Tallow	61789-97-7	<100
Fatty acids, palm oil	68440-15-3	<10

4. First Aid Measures

A. IF IN EYES	Get immediate medical advice/attention Immediately wash with water for at least 20 minutes.
B. IF ON SKIN	Take to a physician if necessary Immediately wash with running water for at least 20minutes. Remove contaminated clothing and wash before reuse

If minor skin contact to prevent spreading contamination on the site.

For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat.

If skin irritation occurs: Get medical attention

C. IF INHALED	<p>Get immediate medical advice/attention Please give oxygen if breathing is difficult IF exposed or concerned; get medical advice Remove victim to fresh air. Do not use mouth-to-mouth resuscitation and use proper respiratory medical device. Make warm and take rest.</p>
D. IF Swallowed	<p>Get immediate medical attention. IF exposed or concerned; get medical advice. Do not use mouth-to-mouth resuscitation and use proper respiratory medical device. Do not feed anything by mouth to an unconscious person</p>
E. Other medical attention	<p>IF expose; Contact medical get special first aid measures. Medical personnel are aware of the material and take steps to protect.</p>

5. FIREFIGHTING MEASURES

A. Appropriate(unsuitable) extinguishing media	<p>. High pressure water (Unsuitable) Major fire: Water spray, Fire fighting foam (Appropriate) Minor fire: Dry sand, Dry Chemicals, Alcohol Resistant foam, Water spray, Fire fighting foam, CO2 (Appropriate)</p>
B. Specific hazards arising from the chemical	<p>It may cause toxic fume in high temperature by thermal decomposition or combustion. Container may explode when heated. Some of the fire does not burn easily It can be ignited by heat, spark, flame Some of the liquid may release vapour causing dizziness, suffocation. In contact with the skin and the eyes it can cause</p>

	burns
C. Firefighters wear protective equipment	<p>Move the containers from fire area if you can do it without risk.</p> <p>Leakage may cause contamination.</p> <p>In contact with the skin can cause burns</p> <p>Can be digested ditch dug for the disposal of material scattered and not on the street.</p> <p>Withdraw immediately in case of rising sound venting safety devices or any discoloration of tank due to fire.</p> <p>Cool down containers with water.</p> <p>Keep a safe distance from the fire area</p>

6. Accidental Release Measures

A. Personal precautions	<p>Immediately wipe off spilled it, follow precautions.</p> <p>Eliminate all ignition sources if safe to do so.</p> <p>Ventilate the contaminated area.</p> <p>Please note that materials and conditions to avoid.</p> <p>Stop leak if safe to do so.</p> <p>Do not touch spillage and container without wearing suitable protective clothing.</p> <p>Cover with a plastic sheet to prevent spreading</p>
B. Environmental precautions	<p>Spillage may cause contamination</p> <p>Prevent from release to confined areas, waterways, sewers, basements</p> <p>Avoid release to the environment.</p>
C. Methods for cleaning up	<p>Absorb with inert material (such as dry sand or earth) then place in a chemical waste container.</p> <p>Absorb the liquid then flush area with water and detergent.</p>

7. Handling and storage

A. Safety handling	<p>Wash thoroughly after handling.</p> <p>Do not handle until all safety precautions have been read and understood.</p>
B. Storage precautions	<p>Store in locked storage</p>

Store locked up.

Please note that there are materials and conditions to avoid.

8. Exposure controls/personal protection

A. Occupational Exposure limits

Korea regulation	Not available
ACGIH regulation	Not available
Biological exposure index	Not available

B. Appropriate engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
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C. Personal protective equipment

Respiratory protection	Wear a adequate respiratory protection equipment with certificate of Korea Occupational Safety&Health Agency, by considering physicochemical properties of exposed particulate material.
Eye protection	Wear safety goggles to protect from material. An eye wash unit and safety shower station should be available nearby work place.
Hand protection	Wear appropriate protective gloves by considering physical and chemical properties of chemicals
Body protection	Wear appropriate protective clothing by considering physical and chemical properties of chemicals

9. Physical and chemical properties

A. Appearance

Description	Liquid or Solid
Color	Dark Brown

B. Odor

Not available

C. Odor threshold

Not available

D. pH

Not available

E. Melting point/freezing point

<27.5

F. Initial boiling point and boiling range

Not available

G. Flash point

>70°C

H. Evaporation rate

Not available

I. Flammability(solid, gas)

Not available

J. Upper/lower flammability or explosive limits	Not available
K. Vapor pressure	Not available
L. Solubility	Not available
M. Vapor density	Not available
N. Specific gravity	<0.92 (at 15°C)
O. Partition coefficient: n-octanol/water	Not available
P. Auto ignition temperature	Not available
Q. Decomposition temperature	Not available
R. Viscosity	20(at 50°C)~100(at 40°C) mm ² /s
S. Molecular weight	Not available

10. Stability and reactivity

A. Chemical stability and possibility of hazardous reactions	<p>May decompose at high temperatures into forming toxic gases.</p> <p>Containers may explode when heated.</p> <p>Some of these materials may burn, but none ignite readily</p> <p>Non-combustible, substance itself does not burn but may decompose upon heating, then produce corrosive and /or toxic fumes.</p> <p>Safe at room temperature and pressure.</p>
B. Conditions to avoid	Ignition sources(heat, sparks or flames)
C. Incompatible materials	Combustibles, reducing agents
D. Hazardous decomposition products	Corrosive and/or toxic fume

11. Toxicological information

A. Information on primary routes of exposure	<p>Mucosal irritation, Upper respiratory tract irritation, Sore throat and cough,</p> <p>Abdominal pain and diarrhea</p> <p>Irritation or dermatitis</p>
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B. Information of Health Hazardous

Acute toxicity

Oral	No available
Dermal	No available
Inhalation	No available

Skin corrosion/irritation	No available
Serious eye damage/irritation	No available
Respiratory sensitization	No available
Skin sensitization	No available
Carcinogenicity	
IARC	No available
OSHA	No available
ACGIH	No available
NTP	No available
EU CLP	No available
Mutagenicity	No available
Reproductive toxicity	No available
Specific target organ toxicity (single exposure)	No available
Specific target organ toxicity (repeat exposure)	No available
Aspiration hazard	No available

12. Ecological information

A. Ecological toxicity

Fish	No available
Crustacean	No available
Algae	No available

B. Persistence and degradability

Persistence	No available
Degradability	No available

C. Bioaccumulative potential

Bioaccumulation	No available
Degradability	No available

D. Mobility in soil

No available

E. Other hazardous effect

No available

13. Disposal considerations

A. Disposal method	Waste must be disposed of in accordance with federal, state and local environmental control regulations
B. Disposal precaution	Consider the required attentions in accordance with waste treatment management regulation.

14. Transport information

A. UN Number(UN No.)	No applicable
B. UN Proper shipping name	No applicable
C. Transport hazard class	No applicable
D. Packing group	No applicable
E. Marine pollutant	No available
F. Special precautions	
In case of fire	No applicable
In case of leakage	No applicable

15. Regulatory information

U.S.A management information(OSHA regulation)	No applicable
U.S.A management information(CERCLA regulation)	No applicable
U.S.A management information(EPCRA 302 regulation)	No applicable
U.S.A management information(EPCRA 304 regulation)	No applicable
U.S.A management information(EPCRA 313 regulation)	No applicable
Substance of Roterdame protocol	No regulated
Substance of Stockholme protocol	No regulated
Substance of Montreal protocol	No regulated
EU classification(classification)	No applicable
EU classification(risk phrases)	No applicable
EU classification(safety phrases)	No applicable

16. Other information

Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS(safety data sheet) to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.