



Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: SFSS-CD-160

General Characteristics: Petroleum Distillates (Petroleum hydrocarbon mixture)

Intended Use: Industrial Solvent

Hazard Classification: Flammable & Hazardous material to environment

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Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	Synonyms	CAS#	Concentration*
Petroleum Distillates , Hydrotreated Middle distillates	Amoco NT-45 process oil	64742-46-7	100%

Section 3 - HAZARDS IDENTIFICATION

A. HAZARD & RISK Classification:

- ✧ Acute toxicity(inhale :dust/mist)-Category4
- ✧ Carcinogenicity : Category 1B

B. Label element, including precautionary statements:

✧ Symbols:



✧ Signal word(s): Danger, Warning

✧ Hazard & Risk statement(s):

- H332: Harmful if inhaled
- H350: May cause cancer

✧ Precautionary statement(s):

Prevention

- P201:Obtain special instructions before use.
- P202:Do not handle until all safety precautions have been read and understood.
- P261:Avoid breathing dust/fume/gas/mist/vapors/spray
- P271:Use only outdoors or in a well-ventilated area.
- P281:Use personal protective equipment as required.

Response

- P304+P340: IF INHALED:Remove victim to fresh air and keep at rest in a position Comfortable for breathing.
- P308+P313: IF exposed or concerned :Get medical advice/attention.
- P312 : Call a POISON CENTER or doctor/physician.



Storage

- P405: Store locked up.

Disposal

- P501: Dispose of contents/container to...

◇ **Other Hazard Classification;**

NFPA : Hydrotreated Light distillates : Hygiene- 1, Fire- 2, Reactivity- 0

Section 4 - FIRST AID MEASURES

INHALATION : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SKIN CONTACT :

Remove contaminated clothing and shoes.

Wash immediately with large amounts of water and soap for a minimum 15 minutes.

Get medical attention. If symptoms persist, seek medical attention.

Laundry sufficiently contaminated clothing before re-use otherwise get rid off it.

EYE CONTACT

Immediately flush eyes with running water for a minimum of 30 minutes.

Flush eyes with 0.9% solution in sterilized saline occasionally lifting upper and lower lids for a minimum of 30 minutes or until cul-de-sacs are neutralized or no evidence of chemical remains.

Get medical attention immediately. Inspect frequently.

INGESTION :

Aspiration hazard. If swallowed, vomiting may occur spontaneously, but do not induce.

If vomiting occurs, keep head below hips to prevent aspiration into lungs.

Never give anything by mouth to an unconscious person. Call a physician immediately.

Section 5 - FIRE FIGHTING MEASURES

A. Suitable extinguishing media:

1. Extinguishing media: Dry chemical, Carbon dioxide, Water, Normal foam.

2. Unsuitable extinguishing media: No data

3. Extinguish method:

Use water to cool fire-exposed tanks, containers, and structures. Fight horizontal tank fires from side of the tank. Use foam if exposed to heat or flame.

B. Specific hazards arising from the chemical:

1. Toxicant from combustion:

Toxic substances created (e.g. CO, oxidized hydrocarbon and sulfur)

2. Fire and Explosion Hazards:

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity.

When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

C. Special protective equipment and precautions for firefighters:



Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.

Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam. See Section 16 for the NFPA 704 Hazard Rating.

Section 6 - ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures:

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Vapor can be controlled using a water fog. Water streams should not be directed to the liquid as this will cause the liquid to boil and generate more vapor. Keep personnel upwind from leak. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container.

B. Environmental precautions:

1. Air : No data
2. Soil : No data
3. Water : No data

C. Methods and materials for containment and cleaning up:

Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Use non-sparking tools and equipment. Do not use combustible material, such as saw dust. Do not flush to sewer.

Section 7 - HANDLING AND STORAGE

A. Precautions for safe handling:

Use only in a well-ventilated area. Ground and bond containers when transferring material. NFPA class IA storage. Flash point is less than 73 degrees F and boiling point is less than 100 degrees F. Avoid breathing (dust, vapor, mist, gas). Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly



after handling. Never siphon by mouth.
B. Conditions for safe storage. including incompatibilities:
Keep away from heat, sparks, and flame. Keep container closed when not in use. Consult NFPA and / or OSHA codes for additional information.
Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
A. Exposure limits in the air of the workplace, biological limit values:
<ul style="list-style-type: none"> ● KOSHA : No data ● ACGIH: No data ● EU HSPA(Hydrocarbon Solvents Producers Association) : No data ● Biological exposure limits : No data
B. Appropriate engineering controls:
<p>Use with adequate ventilation.</p> <p>Good general ventilation should be sufficient to control airborne levels.</p> <p>If the materials may be explosive, explosion-proof facility shall be installed for the corresponding ventilation system. Check if the exposure is proper within the exposure criteria.</p>
C. Individual protection measures:
<p>Respiratory protection :</p> <p>Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH/MSHA-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.</p> <p>Eyes protection :</p> <p>Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).</p> <p>Hands protection :</p> <p>The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Protective gloves are recommended to protect against contact with product. Polyethylene; Neoprene; Nitrile; Polyvinyl alcohol; Viton;</p> <p>Human body protection :</p> <p>Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required. The following materials are acceptable for use as protective clothing: Polyvinyl alcohol (PVA); Polyethylene; Neoprene; Nitrile;</p>



<p>Viton; Polyurethane; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse. For non-fire emergencies, positive pressure SCBA and structural firefighter's protective clothing will provide only limited protection.</p>
<p>Section 9 - PHYSICAL AND CHEMICAL PROPERTIES</p>
<p>A. Appearance (physical state, colour etc): Liquid / Colorless & Transparency B. pH: No data C. Odor: Typical hydrocarbon odor D. Boiling Point: 300~380°C E. Specific gravity: 0.835 ± 0.015 at 15°C F. Solubility in water: Insoluble (<0.1% of Water) G. Vapour pressure: < 0.1 mmHg(R. V. P.) at 20°C H. Vapor density: > 1 (Water=1) I. Aniline point > 95 °C J. Copper corrosion: 1a for 100°C/2hr K. Explosion: No Data L. Oxidation: No Data M. Flash point: > 150°C(P. M. C. C) N. Melting point : No data O. Viscosity: > 5.0 cSt P. Molecular weight: No Data (Mixture of Hydrocarbons)</p>
<p>Section 10 - STABILITY AND REACTIVITY</p>
<p>A. Chemical stability: Stable in normal temperature and pressure, and for normal usage B. Toxicant generation possibility during reaction : Will not occur. C. Conditions to avoid: Keep away from heat/sparks/open flames/hot surfaces and other ignition sources. - No smoking. D. Materials to avoid: Oxidizing agent E. Toxicant during decomposition : Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants</p>
<p>Section 11 - TOXICOLOGICAL INFORMATION</p>
<p>A. Information on the likely routes of exposures: Inhalation exposure: Harmful if inhaled Ingestion exposure: Harmful if swallowed Skin exposure: Harmful if absorbed through skin Eye exposure: No data</p>
<p>B. Health hazards information: Acute toxic: Oral : LD 50 > 5000 mg/kg - rat. Dermal : LD 50 > 2000 mg/kg - rabbit. Inhalation : mist LC50 4.6mg/L, 4 hr rat.</p>



Skin corrosion / irritation : No data Serious eye damage / eye irritation : No data Respiratory sensitization : N/A Skin sensitization : N/A Carcinogenicity : N/A Germ cell mutagenicity : N/A Reproductive toxicity : N/A Specific target organ systemic toxicity (Single exposure) : N/A Specific target organ systemic toxicity (repeated exposure) : N/A Aspiration hazard: Category 1 (Which cause concern owing to the pulmonary edema and death that they cause human and laboratory animals are aspiration toxicity hazard)
Section 12 - ECOLOGICAL INFORMATION
A. Hazardous to the aquatic environment
Fish: No data Crustacea: No data Algae: No data
B. Persistence and degradability:
Persistence: No data Degradability: No data
C. Bioaccumulative potential:
Bio-accumulation : No data Bio-degradability : No data
D. Mobility in soil: No Data
E. Other adverse effects: fish : No data
Section 13 - DISPOSAL CONSIDERATIONS
A. Disposal methods: Dispose of in accordance with state, local and federal environmental regulations. This materials is a RCRA Hazardous waste.
B. Disposal cautions: Do not flush material to drain or storm sewer. Contract to authorized disposal service.
Section 14 - TRANSPORT INFORMATION
A. UN Number: NO DATA
B. UN Proper Shipping Name : Hydrotreated Middle distillate
C. Transport hazard class(es): No data
D. Packing group, if applicable: No data
E. Environmental hazards: No data No data
F. Special precautions for user: Emergency management type of fire: NO DATA Emergency management type of leak: NO DATA
G. Other requirements in domestic and other countries: No data
Section 15 - REGULATORY INFORMATION



Industrial safety and health act: Occupation environment measurement material

Toxic chemical substance subject to management act: Not determined

Dangerous material safety control act:

The Second class of petroleum of the fourth class of Hazardous substance

Dangerous material Class III

Wastes Management act:

Waste liquid with oil of over 5% is classified as specified waste

Other requirements in domestic and other countries:

● U.S. acts (OSHA, CERCLA, EPCRA, and Montreal protocol et.,al.):

SARA 311/312 (40CFR370.21)

● EC Classification

Classification : Carc. Cat. 2; R45

Risk phrases : R45

Safety phrases : S45, S53

Persistent organic pollutant control act (Korea) :Not determined

Section 16- OTHER INFORMATION

This MSDS is made out on the basis of our knowledge and standard of EC.

References :

- United States National Library of Medicine.
- EINECS (European Inventory of Existing Commercial chemical Substances)
- IARC(International Agency for Research on Cancer.)
- NIOSH (The National Institute for Occupational Safety and Health)
- ACGIH (American Conference of Governmental Industrial Hygienists.)
- IUCLID Dataset
- ICSC (International Chemical Safety Cards)- ILO

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