

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Trade name or designation of the mixture	All System Hydraulic Fluid
Registration number	-
Synonyms	None.
Product No.:	All System Hydraulic Fluid
Issue date	21-June-2013
Version number	02
Revision date	30-July-2015
Supersedes date	21-June-2013

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Steering and Suspension.
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet**Manufacturer/Supplier**

Company name	Federal Mogul Corporation (BE)
Address:	Central Distribution Centre Prins Boudewijnlaan 7 B-2550 Kontich, Belgium
Contact person:	Product Manager GA Europe, Middle-East and Africa e-mail: mario.garelli@federalmogul.com Address: Mario Garelli - via Fermi, 8 - 37135 Verona - ITALY; Tel. +39 045 82 81 354
Emergency telephone:	24hr EP (INFOTRAC): 1-800-535-5053 International: (001) 352-323-3500

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended**Health hazards**

Acute toxicity, inhalation	Category 4	H332 - Harmful if inhaled.
Aspiration hazard	Category 1	H304 - May be fatal if swallowed and enters airways.

Hazard summary Harmful by inhalation. May be fatal if swallowed and enters airways.

2.2. Label elements**Label according to Regulation (EC) No. 1272/2008 as amended**

Contains: Dec-1-ene, dimers, hydrogenated, Distillates (petroleum), hydrotreated middle, Lubricating Oils (petroleum), C15-30, Hydrotreated Neutral Oil-based

Hazard pictograms

Signal word Danger

Hazard statements

H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.

Precautionary statements**Prevention**

P261 Avoid breathing mist or vapour.
P271 Use only outdoors or in a well-ventilated area.

Response

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P331 Do NOT induce vomiting.

Storage

Store away from incompatible materials.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information None.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Dec-1-ene, dimers, hydrogenated	30 - 60	68649-11-6 500-228-5	01-2119493069-28	-	
Classification:	Asp. Tox. 1;H304, Acute Tox. 4;H332				
Lubricating Oils (petroleum), C15-30, Hydrotreated Neutral Oil-based	30 - 60	72623-86-0 276-737-9	01-2119474878-16	649-482-00-X	
Classification:	Asp. Tox. 1;H304				L
Distillates (petroleum), hydrotreated middle	1 - 5	64742-46-7 265-148-2	01-2119826592-36	649-221-00-X	
Classification:	Asp. Tox. 1;H304				N

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

Note N: The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen. This note applies only to certain complex oil-derived substances in Part 3.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move injured person into fresh air and keep person calm under observation. In case of persistent throat irritation or coughing or after inhalation of oil mist: Seek medical attention and bring along these instructions.

Skin contact Remove contaminated clothing and wash skin with soap and water. Get medical attention if irritation develops and persists.

Eye contact Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Lay on the side. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed Defats the skin. Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically. Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure.

SECTION 5: Firefighting measures

General fire hazards	Will burn if involved in a fire.
5.1. Extinguishing media	
Suitable extinguishing media	Water spray, dry powder or carbon dioxide.
Unsuitable extinguishing media	Water jet.
5.2. Special hazards arising from the substance or mixture	During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.
Special fire fighting procedures	Use standard firefighting procedures and consider the hazards of other involved materials. Containers close to fire should be removed immediately or cooled with water.
Specific methods	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Extinguish all ignition sources. Avoid sparks, flames and smoking. Ventilate. Avoid inhalation of oil mist and contact with skin and eyes. Avoid prolonged and repeated contact with oil, particularly used oil. Wear suitable protective clothing.
For emergency responders	Use personal protection recommended in Section 8 of the SDS.
6.2. Environmental precautions	Do not discharge into drains, water courses or onto the ground.
6.3. Methods and material for containment and cleaning up	Remove sources of ignition. Absorb spillage with oil-absorbing material. Clean contaminated area with oil-removing material. Collect in containers and seal securely.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Avoid inhalation of oil mist and contact with skin and eyes. Avoid prolonged and repeated contact with oil, particularly used oil. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets. Use work methods which minimise oil mist production. Wear appropriate personal protective equipment. See Section 8 for personal protective equipment. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Keep container tightly closed and dry. Keep container in a well-ventilated place. Keep away from heat, sparks and open flame. Store away from incompatible materials.
7.3. Specific end use(s)	Steering and Suspension.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters	
Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
Derived no-effect level (DNEL)	Not available.
Predicted no effect concentrations (PNECs)	Not available.
8.2. Exposure controls	
Appropriate engineering controls	Use explosion-proof equipment. Adequate ventilation should be provided whenever the material is heated or mists are generated.
Individual protection measures, such as personal protective equipment	
General information	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Risk of splashes: Wear approved safety goggles.
Skin protection	

- Hand protection	Wear suitable gloves. Nitrile gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
- Other	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Respiratory protection	In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with combination filter (type A2/P2) can be used.
Thermal hazards	When material is heated, wear gloves to protect against thermal burns.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Various.
Odour	Oil smell.
Odour threshold	Not available.
pH	Not applicable.
Melting point/freezing point	< -50 °C (< -58 °F)
Initial boiling point and boiling range	> 220 °C (> 428 °F)
Flash point	> 120.0 °C (> 248.0 °F)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	< 0.1 kPa @ (20 °C)
Vapour density	Not available.
Relative density	0.82 - 0.83 @ (15°C)
Solubility(ies)	Insoluble in water. Soluble in non-polar solvents.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	> 300 °C (> 572 °F)
Decomposition temperature	Not available.
Viscosity	16 - 20 cSt @ (40°C)
Explosive properties	Not available.
Oxidizing properties	Not available.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Stable under normal temperature conditions.
10.3. Possibility of hazardous reactions	Will not occur.
10.4. Conditions to avoid	Heat, sparks, flames.
10.5. Incompatible materials	Strong oxidising agents. Strong acids.
10.6. Hazardous decomposition products	Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
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Information on likely routes of exposure

Inhalation	Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing. Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection in the respiratory tract.
Skin contact	May cause skin irritation. Prolonged and repeated contact with used oil may dry skin and cause redness. Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis. The harmful effects may increase in used oil.
Eye contact	May cause minor irritation on eye contact.
Ingestion	May cause discomfort if swallowed. Swallowing or vomiting of the liquid may result in aspiration into the lungs.
Symptoms	Defats the skin. Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure.

11.1. Information on toxicological effects

Acute toxicity	Harmful if inhaled.
Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	May cause minor irritation on eye contact.
Respiratory sensitisation	No data available.
Skin sensitisation	Not a skin sensitiser.
Germ cell mutagenicity	No data available.
Carcinogenicity	Prolonged and repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	May be fatal if swallowed and enters airways.
Mixture versus substance information	Not available.
Other information	No data available.

SECTION 12: Ecological information

12.1. Toxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
12.2. Persistence and degradability	Expected to be inherently biodegradable.
12.3. Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient n-octanol/water (log K_{ow})	Not available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
Mobility in general	The product is insoluble in water and will spread on the water surface.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods	
Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.
EU waste code	13 01 10* Waste codes should be assigned by the user based on the application for which the product was used.
Disposal methods/information	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances

Not listed.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Not listed.

Directive 94/33/EC on the protection of young people at work

Not listed.

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
PBT: Persistent, bioaccumulative and toxic.
vPvB: Very Persistent and very Bioaccumulative.

References

Registry of Toxic Effects of Chemical Substances (RTECS)
HSDB® - Hazardous Substances Data Bank

Information on evaluation method leading to the classification of mixture

The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.

Full text of any H-statements not written out in full under Sections 2 to 15

H304 May be fatal if swallowed and enters airways.
H332 Harmful if inhaled.

Training information

Follow training instructions when handling this material.

Disclaimer

The information provided on this data sheet was abstracted from supplier safety data sheets and standard references in occupational health and toxicology. Federal-Mogul makes no representation or warranty with respect to the information obtained from such references. The information is however, as of the date provided, true and accurate to the best of Federal-Mogul's knowledge, and should be used to make an independent determination of the methods to safeguard workers and the environment.