HALLIBURTON

SAFETY DATA SHEET

according to Regulation (EC) No. 453/2010

XP-07™

Revision Date: 23-Sep-2015 **Revision Number:** 17

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product Name XP-07™
Internal ID Code HM003789

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

Recommended Use Base Fluid
Sector of use SU2 - Mining, (including offshore industries)
Product category PC0 - Other Products
Process categories PROC4 - Use in batch and other process (synthesis) where opportunity for exposure arises

1.3. Details of the supplier of the safety data sheet

Halliburton Manufacturing Services, Ltd.
Halliburton House, Howemoss Crescent
Kirkhill Industrial Estate
Dyce
Aberdeen, AB21 0GN
United Kingdom

www.halliburton.com

For further information, please contact
E-Mail address: fdunexchem@halliburton.com

1.4. Emergency telephone number

+44 8 08 189 0979 / 1-760-476-3961

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**
Croatia	Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health)
Cyprus	+210 7793777
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO):+ 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Romania	+40 21 318 36 06
Spain	Poison Information Service (ES): +34 91 562 04 20
United Kingdom	NHS Direct (UK): +44 0845 46 47

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Aspiration Category	Category 1 - H304

2.2. Label Elements

Hazard Pictograms

Signal Word **Danger**

Hazard Statements
H304 - May be fatal if swallowed and enters airways
EUH066 - Repeated exposure may cause skin dryness or cracking

Precautionary Statements - EU (§28, 1272/2008)
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P405 - Store locked up
P501 - Dispose of contents/container to an approved incineration plant

Contains

Substances	**CAS Number**
Paraffins, petroleum, normal C>10	64771-71-7
Paraffin, petroleum, normal C5-C20	64771-72-8

2.3. Other Hazards
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on Ingredients

3.1. Substances Substance

Substances	EINECS	CAS Number	PERCENT (w/w)	EU - CLP Substance Classification	REACH No.
Paraffins, petroleum, normal C>10	265-232-9	64771-71-7	60 - 100%	Asp. Tox. 1 (H304)	No data available
Paraffin, petroleum, normal C5-C20	265-233-4	64771-72-8	60 - 100%	Asp. Tox. 1 (H304) (EUH066)	No data available

For the full text of the H-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Eyes In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Skin Wash with soap and water. Get medical attention if irritation persists. Remove contaminated clothing and launder before reuse.

Ingestion Get medical attention! If vomiting occurs, keep head lower than hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person.

4.2. Most Important symptoms and effects, both acute and delayed
Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: Firefighting Measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2. Special hazards arising from the substance or mixture

Special Exposure Hazards

Decomposition in fire may produce harmful gases. Vapors are heavier than air and may accumulate in low areas. Vapors may travel along the ground to be ignited at distant locations.

5.3. Advice for firefighters

Special Protective Equipment for Fire-Fighters

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas.

6.3. Methods and material for containment and cleaning up

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

6.4. Reference to other sections

See Section 8 and 13 for additional information.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling

Use appropriate protective equipment. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Ground and bond containers when transferring from one container to another.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use. Keep from heat, sparks, and open flames. Store away from direct sunlight. Product has a shelf life of 36 months.

7.3. Specific End Use(s)

Exposure Scenario No information available

Other Guidelines No information available

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Exposure Limits

Substances	CAS Number	EU	UK	Netherlands	France
Paraffins, petroleum, normal C>10	64771-71-7	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Germany	Spain	Portugal	Finland
Paraffins, petroleum, normal C>10	64771-71-7	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable

C5-C20					

Substances	CAS Number	Austria	Ireland	Switzerland	Norway
Paraffins, petroleum, normal C>10	64771-71-7	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Italy	Poland	Hungary	Czech Republic
Paraffins, petroleum, normal C>10	64771-71-7	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable

Substances	CAS Number	Denmark	Romania	Croatia	Cyprus
Paraffins, petroleum, normal C>10	64771-71-7	Not applicable	Not applicable	Not applicable	Not applicable
Paraffin, petroleum, normal C5-C20	64771-72-8	Not applicable	Not applicable	Not applicable	Not applicable

Derived No Effect Level (DNEL) No information available.

Worker

General Population

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Controls Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional. Organic vapor respirator.

Hand Protection Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nitrile gloves. (>= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.

Skin Protection Normal work coveralls.

Eye Protection Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions Eyewash fountains and safety showers must be easily accessible.

Environmental Exposure Controls Do not allow material to contaminate ground water system

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid **Color:** Clear
Odor: Mild hydrocarbon **Odor Threshold:** No information available

Property Values
Remarks/ - Method

pH:	No data available
Freezing Point/Range	0 °C
Melting Point/Range	No data available
Boiling Point/Range	221 -248 °C
Flash Point	106 °C / 222 °F PMCC
Flammability (solid, gas)	No data available
upper flammability limit	4.9
lower flammability limit	0.6
Evaporation rate	< 1
Vapor Pressure	0.08
Vapor Density	6.48
Specific Gravity	0.767
Water Solubility	Insoluble in water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	229 °C / 444 °F
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%) No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical Stability

Stable

10.3. Possibility of Hazardous Reactions

Will Not Occur

10.4. Conditions to Avoid

None anticipated

10.5. Incompatible Materials

Strong oxidizers.

10.6. Hazardous Decomposition Products

Carbon monoxide and carbon dioxide. Hydrocarbons.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

Inhalation If heated: May cause central nervous system depression including headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Eye Contact May cause slight eye irritation.

Skin Contact May cause skin defatting with prolonged exposure.

Ingestion Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Paraffins, petroleum, normal C>10	64771-71-7	> 5000 mg/kg (Rat) (similar substance)	> 2000 mg/kg (Rabbit) (similar substance)	> 1369 ppm (Rat, 4h, vapor) (saturation)
Paraffin, petroleum, normal C5-C20	64771-72-8	> 5000 mg/kg (Rat)	> 2000 mg.kg (Rabbit) (similar substance)	>1369 ppm (Rat, 8h, saturated) (similar substance)

Substances	CAS Number	Skin corrosion/irritation
Paraffins, petroleum, normal C>10	64771-71-7	Non-irritating to the skin (Rabbit) (similar substances)

Paraffin, petroleum, normal C5-C20	64771-72-8	Not irritating to skin in rabbits.

Substances	CAS Number	Eye damage/irritation
Paraffins, petroleum, normal C>10	64771-71-7	Non-irritating to the eye (Rabbit) (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	Non-irritating to rabbit's eye (similar substances)

Substances	CAS Number	Skin Sensitization
Paraffins, petroleum, normal C>10	64771-71-7	Did not cause sensitization on humans or laboratory animals. (guinea pig) (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	Did not cause sensitization on laboratory animals (guinea pig) Patch test on human volunteers did not demonstrate irritating properties

Substances	CAS Number	Respiratory Sensitization
Paraffins, petroleum, normal C>10	64771-71-7	No information available
Paraffin, petroleum, normal C5-C20	64771-72-8	No information available

Substances	CAS Number	Mutagenic Effects
Paraffins, petroleum, normal C>10	64771-71-7	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects. (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Paraffins, petroleum, normal C>10	64771-71-7	Not regarded as carcinogenic. (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	Not regarded as carcinogenic. (similar substances)

Substances	CAS Number	Reproductive toxicity
Paraffins, petroleum, normal C>10	64771-71-7	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments. (similar substances)

Substances	CAS Number	STOT - single exposure
Paraffins, petroleum, normal C>10	64771-71-7	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	STOT - repeated exposure
Paraffins, petroleum, normal C>10	64771-71-7	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)
Paraffin, petroleum, normal C5-C20	64771-72-8	No significant toxicity observed in animal studies at concentration requiring classification. (similar substances)

Substances	CAS Number	Aspiration hazard
Paraffins, petroleum, normal C>10	64771-71-7	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.
Paraffin, petroleum, normal C5-C20	64771-72-8	Aspiration into the lungs may cause chemical pneumonitis including coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

SECTION 12: Ecological Information

12.1. Toxicity

Ecotoxicity Effects

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Paraffins, petroleum, normal C>10	64771-71-7	EL50 (72h) > 10000 mg/L (Skeletonema costatum) (similar substance)	LL50 (96h) > 1000 mg/L (Oncorhynchus mykiss) (similar substance) LL50 (96h) > 1028 mg/L (Scophthalmus maximus) (similar substance)	No information available	EL50 (48h) > 1000 mg/L (Daphnia Magna) (similar substance) EL50 (48h) > 1000 mg/L (Chaetogammarus marinus) (similar substance) EL50 (48h) > 10000 mg/L (Arcartia tonsa) (similar substance)
Paraffin, petroleum, normal C5-C20	64771-72-8	EC50 (72h) 6935.35 mg/L (Skeletonema costatum)	LC50 (96h) > 5000 mg/L (Pimephales promelas) LC50 (96h) > 1000 mg/L (Scophthalmus maximus)	No information available	EL50 (48h) > 1000 mg/L (Daphnia Magna) LC50 (48h) > 1000 mg/L (Acartia tonsa)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Paraffins, petroleum, normal C>10	64771-71-7	Readily biodegradable (80% @ 28d)
Paraffin, petroleum, normal C5-C20	64771-72-8	Readily biodegradable (74% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Paraffins, petroleum, normal C>10	64771-71-7	> 7.1
Paraffin, petroleum, normal C5-C20	64771-72-8	> 6

12.4. Mobility in soil

Substances	CAS Number	Mobility
Paraffins, petroleum, normal C>10	64771-71-7	No information available
Paraffin, petroleum, normal C5-C20	64771-72-8	No information available

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Substances	PBT and vPvB assessment
Paraffins, petroleum, normal C>10	Not PBT/vPvB
Paraffin, petroleum, normal C5-C20	Not PBT/vPvB

12.6. Other adverse effects

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Disposal Method Disposal should be made in accordance with federal, state, and local regulations. Incineration recommended in approved incinerator according to federal, state, and local regulations.

Contaminated Packaging Follow all applicable national or local regulations.

SECTION 14: Transport Information

IMDG/IMO

UN Number: Not restricted
UN Proper Shipping Name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

RID

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

ADR

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

IATA/ICAO

UN Number:	Not restricted
UN Proper Shipping Name:	Not restricted
Transport Hazard Class(es):	Not applicable
Packing Group:	Not applicable
Environmental Hazards:	Not applicable

14.1. UN Number: Not restricted

14.2. UN Proper Shipping Name: Not restricted

14.3. Transport Hazard Class(es): Not applicable

14.4. Packing Group: Not applicable

14.5. Environmental Hazards: Not applicable

14.6. Special Precautions for User: None

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

SECTION 15: Regulatory Information

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

International Inventories

EINECS Inventory	This product, and all its components, complies with EINECS
US TSCA Inventory	All components listed on inventory or are exempt.
Canadian DSL Inventory	All components listed on inventory or are exempt.

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Germany, Water Endangering Classes (WGK) WGK 1: Low hazard to waters.

15.2. Chemical Safety Assessment
No information available

SECTION 16: Other Information

Full text of H-Statements referred to under sections 2 and 3
H304 - May be fatal if swallowed and enters airways
EUH066 - Repeated exposure may cause skin dryness or cracking

Key or legend to abbreviations and acronyms
bw – body weight
CAS – Chemical Abstracts Service
CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures
EC – European Commission

EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL – Short Term Exposure Limit
SU – Sector of Use category

Key literature references and sources for data
www.ChemADVISOR.com/

Revision Date: 23-Sep-2015
Revision Note
SDS sections updated: 1

This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010

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End of Safety Data Sheet