

SAFETY DATA SHEET

Product name **FYRQUEL EHC**
Product id 7052
Revision date 17/07/2018 **Revision: 7**
Supersedes 13/12/2016

1. Identification of the substance & the company

Product identifier FYRQUEL EHC
Chemical name Butylated triphenyl phosphate ester based mixture with Trixylyl phosphate
Chemical family Aryl phosphate
Type of product and use Fire-resistant hydraulic fluid
Company ICL-IP America Inc.
622 Emerson Road - Suite 500
St Louis, Missouri 63141, USA
Phone - 1 800 666 1200

Emergency telephone number:

- For Europe +32 (0) 3 575 5555 SGS
- For UK and Ireland +44 (0) 1270 502891 (24 Hours)
- For USA Chemtrec (800) 424-9300
- For Asia - Pacific ALERT-SGS
24 hr Toll Free Number : +800 ALERTSGS (+800-2537-8747)
24 hr Singapore Exchange Number : +65 6542-9595
- For Japan Tel: 03-6801 8430: 03-6801 6970

2. Hazards identification

GHS classification Repr. 1B, H360 - May damage fertility or the unborn child (Testicular effects - sperm concentration, motility)
STOT RE 2, H373 - May cause damage to adrenals, testes, epididymides, ovaries, liver (females only) through prolonged or repeated exposure
Aquatic Acute 1, H400 - Very toxic to aquatic life
Aquatic Chronic 1, H410 - Very toxic to aquatic life with long lasting effects

Labels and other form of warning .



Signal Word DANGER

SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

Hazard statements	<p>H360 - May damage fertility or the unborn child (Testicular effects - sperm concentration, motility)</p> <p>H373 - May cause damage to adrenals, testes, epididymides, ovaries, liver (females only) through prolonged or repeated exposure</p> <p>H410 - Very toxic to aquatic life with long lasting effects</p>
Precautionary statements	<p>P202 - Do not handle until all safety precautions have been read and understood</p> <p>P260 - Do not breathe dust/fume/gas/mist/vapors/spray</p> <p>P273 - Avoid release to the environment</p> <p>P280 - Wear protective gloves/protective clothing/eye protection/face protection</p> <p>P308 + P313 - IF exposed or concerned: Get medical advice/attention</p> <p>P391 - Collect spillage</p> <p>P405 - Store locked up</p> <p>P501 - Dispose of contents/container in accordance with national and international regulations</p>
NFPA Ratings (Scale 0-4)	Health = 1, Fire = 1, Reactivity = 0

3. Composition / information on ingredients

Components	Weight %	Index No.	EC No.	EU Classification
t-Butylphenyl diphenyl phosphate 56803-37-3	15 - 21		260-391-0	-
Bis(t-butylphenyl)phenyl phosphate 65652-41-7	15 - 21		265-859-8	-
Tri(t-butylphenyl) phosphate 78-33-1	5 - 9		201-106-1	None
Triphenyl phosphate 115-86-6	7.5 - 15		204-112-2	Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Trixylyl phosphate 25155-23-1	30 - 50	015-201-00-9	246-677-8	Repr. 1B, H360 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Butylated triphenyl phosphate is multi constituent substance can also be described as: (CAS No. 68937-40-6)
Phenol, isobutyleneated, phosphate (3:1)

SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

4. First-aid measures

Eye contact	Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before reuse. Get medical attention if irritation occurs.
Inhalation	In case of mist inhalation or breathing fumes released from heated material, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.
Ingestion	If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately. ----- NOTE: Never give an unconscious person anything to drink -----

Most important symptoms and effects, acute or delayed

May damage fertility or the unborn child
 May cause damage to adrenals, testes, epididymides, ovaries, liver (females only) through prolonged or repeated exposure

Notes to the physician Treat symptomatically and supportively.

5. Fire - fighting measures

Suitable extinguishing media	Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.
Unusual fire and explosion hazards	When heated to decomposition, may release poisonous and corrosive fumes of carbon dioxide, carbon monoxide and phosphorus oxides.
Fire fighting procedure	Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Contain runoff to prevent entry into water or drainage systems.

SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

6. Accidental release measures

Personal precautions	Wear appropriate safety clothing and eye/face protection (see Section 8).
Methods for cleaning up	Ventilate area and wash spill site after material pickup is complete. Soak up with sand or other suitable absorbent and dispose of as solid waste. Collect in suitable and properly labeled containers.
Environmental precautions	Prevent product from entering drains, ditches and rivers.

7. Handling and storage

Handling	Avoid bodily contact. Keep containers tightly closed.
Storage	Store in a dry, well-ventilated area away from incompatible materials (see "materials to avoid"). Maximum recommended storage temperature of 65°C (149°F) Store above 4.4°C (40° F) for improved pumping rates. Temperatures between 27 - 37.8°C (80 - 100°F) provide good flow rates.

8. Exposure controls / personal protection

Exposure Limits :

Components	ACGIH-TLV Data	Korea OEL	OSHA (PEL) Data
t-Butylphenyl diphenyl phosphate 56803-37-3	Not determined	Not determined	Not determined
Bis(t-butylphenyl)phenyl phosphate 65652-41-7	Not determined	Not determined	Not determined
Tri(t-butylphenyl) phosphate 78-33-1	Not determined	Not determined	Not determined
Triphenyl phosphate 115-86-6	3 mg/m ³	Not determined	3 mg/m ³
Trixylyl phosphate 25155-23-1	Not determined	Not determined	Not determined

Ventilation requirements	Ventilation must be sufficient to maintain atmospheric concentration below recommended exposure limit.
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Personal protective equipment:

- Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment. Use an organic vapor/acid gas respirator with dust, mist, and fume filters to reduce potential for inhalation exposure.
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SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

- Hand protection	Neoprene gloves.
- Eye protection	Chemical safety goggles
- Skin and body protection	Body covering clothes and boots

Hygiene measures Do not eat, smoke or drink where material is handled, processed or stored. Wash hands thoroughly after handling and before eating or smoking. Safety shower and eye bath should be provided.

9. Physical and chemical properties

Appearance	Clear liquid
Odor	Slight.
pH	Not determined
Melting point/range	Not determined
Boiling point/range	Not determined
Pour point	-17.77°C (0 °F)
Flash point	>235°C (455°F).
Evaporation rate (ether=1)	Not available
Flammability (solid, gas)	Not applicable
Flammable/Explosion limits	Not flammable/Not explosive
Vapor pressure	0.17 mmHg (20°C)
Density	1.145 g/mL (15°C)
Solubility:	
- Solubility in water	< 0.72 µg/l at 20°C
Partition coefficient (n-octanol/water)	Not determined
Auto-ignition temperature	Not self-ignitable
Viscosity	220 SUS @ 37.8°C (100°F)
Ignition temperature	565°C (1050°F)
Explosive properties	Not explosive
Oxidising properties	The structure indicates non oxidizing properties

10. Stability and reactivity

Reactivity	No reactive hazards known/expected.
Stability	Stable under normal conditions
Possibility of hazardous reactions	Not expected to occur
Conditions to avoid	Hydrolyses slowly under weak alkaline or acidic conditions.
Materials to avoid	Acids, alkalis, plastic.
Hazardous decomposition products	Phenol, phosphoric acid.

SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

11. Toxicological information

Note: The following data refer to TXP.

Acute toxicity:

- Rat oral LD50 > 5000 mg/kg

- Rabbit dermal LD50 > 2000 mg/kg

Skin corrosion/irritation Not irritant.

Serious eye damage/ irritation Not irritant

Respiratory or skin sensitisation Not a sensitizer

Chronic toxicity No data available

Mutagenicity Not mutagenic by the Ames Test. Not clastogenic in chromosome aberration test with Chinese hamster cells. Negative in sister chromatid exchange assay in mammalian cells (read across to structural analogue Tricresyl phosphate, CAS 1330-78-5).

Carcinogenicity Not classified by IARC
Not included in NTP 14th Report on Carcinogens

Reproductive toxicity May damage fertility.
Specific effect: Testicular effects - Sperm concentration, motility

Specific Target Organ Toxicity (STOT) - Single exposure No data available

Specific Target Organ Toxicity (STOT) - Repeat exposure May cause damage to organs through prolonged or repeated exposure.
Affected organs: adrenals, testes, epididymides, ovaries, liver (females only)

SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

12. Ecological information

Note:

The following data refer to Trixylenyl phosphate

Aquatic toxicity :

- **96 Hour-LC50, Fish** >1119 ug/l (Fathead minnow)
> 100 mg/l (Rainbow Trout)
- **48 Hour-EC50, Daphnia magna** 60 ug/l
- **EC50, Freshwater algae** > 1011 ug/l (96 hr)
- **NOEC** 0.033 mg/L (freshwater invertebrates)

Biodegradation Not readily biodegradable.

13. Disposal considerations

Waste disposal Dispose of in a safe manner in accordance with local/national regulations.

Disposal of Packaging Dispose of in a safe manner in accordance with local/national regulations.

14. Transportation information

UN No. 3082

IMDG Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (trixylenyl phosphate, triphenyl phosphate)
Class: 9 - Miscellaneous Dangerous Substances and Articles
Packing Group: III
Labels: 9
Mark: MARINE POLLUTANT

ADR/RID Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (trixylenyl phosphate, triphenyl phosphate)
Class: 9 - Miscellaneous Dangerous Substances and Articles
Packing group: III
Classification Code: M6
Hazard identification No: 90
Labels: 9
Marking: Environmentally hazardous substance

SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

ICAO/IATA Proper shipping name: Environmentally hazardous substance, liquid , n.o.s (trixylenyl phosphate, triphenyl phosphate)
 Class: 9
 Packing group: III
 Hazard label(s): Miscellaneous
 Marking: Environmentally hazardous substance

DOT Proper shipping name: Environmentally hazardous substances, liquid , n.o.s (trixylenyl phosphate, triphenyl phosphate)
 Class: 9 - Miscellaneous Hazardous Materials
 Labels: 9
 Packing Group: III

Not regulated for surface and air transport in non-bulk (<119 gallons) packagings. (contains trixylenyl phosphate and triphenyl phosphate which are Marine Pollutants per 49CFR 172.101 Appendix B)

15. Regulatory information

EU regulations	The following data refer to TXP
- Authorisations:	Listed in candidate List of Substances of Very High Concern for Authorization (SVHC) on the basis of its Toxic to reproduction properties.
USA	Reported in the EPA TSCA Inventory.
Australia	Listed in AICS
Canada	Listed in DSL
China	
- China inventory	Listed in IECSC
- Hazardous Chemicals List	The substance is not included
- Toxic Chemicals List	The substance is not included
Japan	Listed in ENCS Listed in ISHL
Korea	Listed in KECI
- Industrial Safety and Health Act	CAS 115-86-6, 25155-23-1 - treshold limit value (TLV) chemical

SAFETY DATA SHEET

Product name	FYRQUEL EHC	
Product id	7052	
Revision date	17/07/2018	Revision: 7
Supersedes	13/12/2016	

- Toxic Chemical Control Act	CAS 115-86-6 - toxic chemicals CAS 68937-40-6 - non toxic chemicals
- Dangerous Substances Safety Management Act	Not applicable
- Waste Management Act	CAS 115-86-6 - designated waste
- Other requirements in domestic and other countries	Persistent Organic Pollutants (POPs) Control Act: Not applicable CAS 65652-41-7, 78-33-1, 56803-37-3, 115-86-6, 25155-23-1 - Listed: Clean Air Conservation Act - Air Pollutants. Water Environment Conservation Act - Water Pollutants
New Zealand Inventory	Listed in NZIoC
Philippines	Listed in PICCS
Taiwan	All ingredients are listed in TCSI Listed (TCSI)
Vietnam	Not all ingredients are listed.
Thailand	Listed



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Supersedes	13/12/2016	

16. Other information

This data sheet contains changes from the previous version in section(s)
2, 4, 7, 12, 15

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End of safety data sheet