

# EV/FCV COOLANT



## Coolants for Evs and FCVs



*You can use our specialized coolants to ensure safety and security.*

**Excellent low conductivity and rust prevention properties. Reliable cooling and antifreeze action.**

**Coolants for EVs and FCVs.**

**Every aspect of their performance is aimed at ensuring "safety and security."**

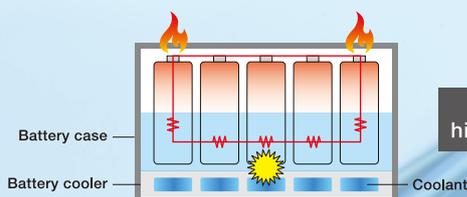
- Their performance, demonstrated through rigorous testing, ensures "safety and security" in both EVs and FCVs.
- They reduce the risk of battery fire and electric shock in the event of an accident.
- These specialized JAPAN CHEMICAL INDUSTRIES coolants are used as genuine products by Japanese automobile manufacturers.
- Used by automobile manufacturers for factory-filling of new cars.

# Comparison with conventional "engine coolants" (LLC):

● Use of patented technology

## EV coolant (cooling of traction-battery)

A low-conductivity coolant that minimizes ion elution from engine components reduces the risk of car fires.

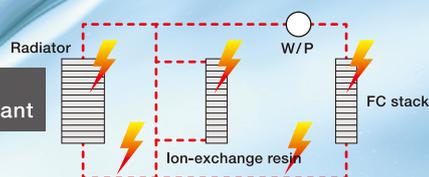


\* Batteries, if short-circuited through coolant, will catch on fire.

● Use of patented technology

## FCV coolant (cooling of fuel cell stack)

An extremely low conductivity coolant that improves vehicle high-voltage safety by minimizing liquid oxidation.



\* Electricity generated by the FC stack is transmitted to the whole unit through the coolant.

**Low-conductivity performance is a crucial requirement for EVs and FCVs. Our coolants are used as genuine products by automobile manufacturers for the factory-filling of vehicles and aftermarket.**

## EV coolant

The traction battery coolant by JAPAN CHEMICAL INDUSTRIES plays an active role in cooling the battery, the lifeblood of electric vehicles.

- Its main component is an ethylene glycol solution that provides the same cooling and antifreeze performance as engine coolant.
- The low conductivity coolant prevents the risk of fires should the coolant come into contact with the battery in the event of an accident.
- Low-ionic strength additive technology guarantees high resistance to metal corrosion and makes it possible to minimize the elution of ions from cooling system components, while ensuring the coolant's low conductivity.

## FCV coolant

The performance of the fuel cell vehicle coolant developed by JAPAN CHEMICAL INDUSTRIES has been validated through rigorous testing.

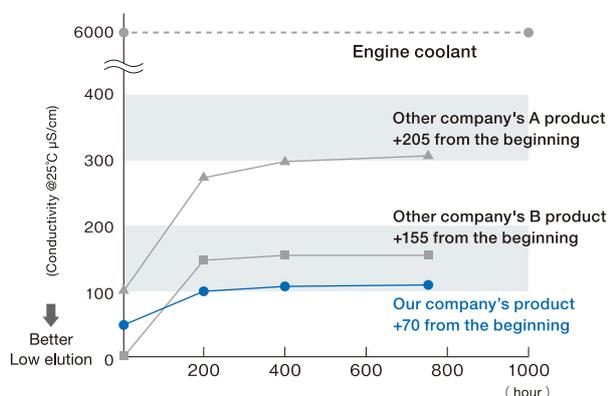
- Its main component is an ethylene glycol solution that provides the same cooling and antifreeze performance as engine coolant.
- The liquid has extremely low conductivity in order to directly cool the generator's FC stack (fuel cell stack) and prevent electric shocks.
- In order to reduce damage to the ion exchanger, it minimizes conductive substances (ions) generated by thermal deterioration.

### Test results

**JAPAN CHEMICAL INDUSTRIES's EV/FCV coolants possess excellent ion elution suppression properties.**

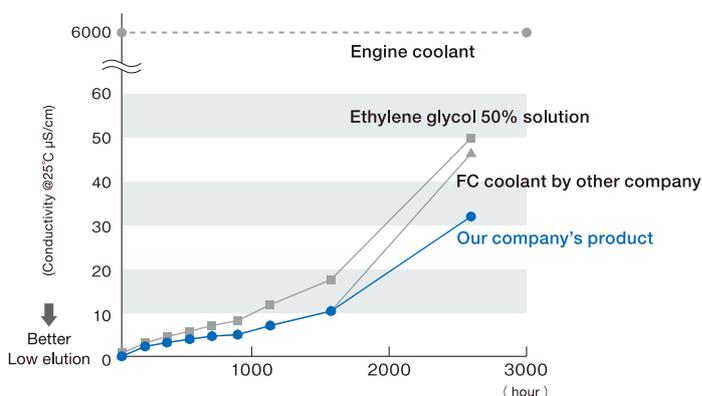
#### EV coolant

Elution from components ·With components immersed at 70°C



#### FCV coolant

Oxidation deterioration ·Stored at 100°C



### Lineup of JAPAN CHEMICAL INDUSTRIES' coolants

	LLC	SLLC	(For FCVs) FC stack coolant	(For EVs) Traction battery coolant
Concentration	Undiluted solution 50% premix	Undiluted solution 50% premix		
Replacement frequency	At every 2-year periodic vehicle inspection	7 years or 160,000 km	Please inquire with the appointed staff	



EV-FCV exclusive sight



HP



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