

Hazard ID	Situational Analysis										Hazard Identification		Hazardous Event Classification				Determination of ASL and Safety Goals				
	Operational Mode	Operational Scenario	Environmental Details	Situation Details	Other Details (optional)	Item Usage / Function	Situation Description	Function	Deviation	Deviation Details	Hazardous Event (Hazardous effect / Resulting effect)	Event Details	Hazardous Event Description	Exposure (if situation)	Rationale (for exposure)	Severity (if potential harm)	Rationale (for severity)	Controllability (if hazardous event)	Rationale (for controllability)	ASL Determination	Safety Goal
HA-001	OM03 - Normal driving	OS04 - Highway	EN06 - Rain (slippery road)	SD02 - High speed		LU01 - Correctly used	Normal driving on a highway during rain (slippery road) with high speed and correctly used system.	Lane Departure Warning (LDW) function shall apply an oscillating steering torque to provide the driver with haptic feedback.	DV04 - Actor effect is too much	The LDW function applies an oscillating torque with very high torque (above limit).	EV00 - Collision with other vehicle	High haptic feedback can affect driver's ability to steer as intended. The driver could lose control of the vehicle and collide with another vehicle or with road infrastructure.	The LDW function applies too high an oscillating torque to the steering wheel (above limit).	E3 - Medium probability	Driving on a highway during rain can happen once a month or more depending on driver's location.	S3 - Life-threatening or fatal injuries	Driver is traveling at high speed.	C3 - Difficult to control or uncontrollable	Overreaction of wheel's vibration is very distracting and even surprising, so the most drivers won't be able to avoid harm.	C	The oscillating steering torque from the LDW function shall be limited.
HA-002	OM03 - Normal driving	OS03 - Country Road	EN01 - Normal conditions	SD02 - High speed		LU02 - Incorrectly used	Normal driving on country roads during normal conditions with high speed.	Lane Keeping Assistance (LKA) function shall apply the steering torque when active in order to stay in ego lane.	DV03 - Function always activated	LKA function is always activated.	EV00 - Collision with other vehicle	Driver treats the function as if it were meant for fully autonomous driving and therefore can't react on critical situations.	The LKA function is always activated and the driver stops focusing on driving the car.	E2 - Low probability	The driver is on a country road and misusing the system.	S3 - Life-threatening or fatal injuries	Driver is traveling at high speed.	C3 - Difficult to control or uncontrollable	LKA is always on, driver could take hands off the wheel and therefore loses control entirely.	B	LKA function shall be time limited and the additional steering torque shall end after a given timer interval so that the driver cannot misuse the system for autonomous driving.
HA-003	OM03 - Normal driving	OS06 - Off Road	EN01 - Normal conditions	SD02 - High speed		LU01 - Correctly used	Normal driving on off road during normal condition with high speed and correctly used system.	Lane Departure Warning (LDW) function shall apply an oscillating steering torque to provide the driver with haptic feedback.	DV12 - Sensor sensitivity is too high	The Lane Departure Warning function always activated as it is not able to find the lane.	EV00 - Collision with other vehicle	As LDW function will be activated all the time. The continuous oscillation of steering wheel can affect driver's ability to steer as intended. This results in collision with other vehicle.	When vehicle is on high speed, the oscillating torque on steering wheel would result in collision.	E2 - Low probability	Driving on off road happens only 1% of average operating time of the vehicle.	S3 - Life-threatening or fatal injuries	Collision at high speed on mountain road could cause life-threatening injuries.	C3 - Difficult to control or uncontrollable	LDW function failed to identify lane on off road. So, random amplitude applied on steering wheel which is difficult to control on high speed.	B	The LDW function shall be turned off when driving on off road condition.
	OM03 - Normal Driving	OS03 - Country Road	EN01 - Normal conditions	SD02 - High speed		LU01 - Correctly used	Normal driving on a country road during normal conditions with high speed and correctly used system.	Lane Keeping Assistance (LKA) function shall apply the steering torque when active in order to stay in ego lane.	DV02 - Function unpredictably activated	The camera sensor stop working and the Lane Keeping Assistance function continue to be activated starting oscillating random torque to the vehicle making the driver to loose control with potential collision with other vehicle.	EV00 - Collision with other vehicle.	The Lane Keeping Assistance continue to be activated starting oscillating random torque when the camera sensor is not working.	The Lane Keeping Assistance start acting randomly when the camera sensor is not working.	E3 - Medium probability	Driving on a highway with rain could happen between 1% and 10% of the time operating the vehicle.	S3 - Life-threatening or fatal injuries	Collisions at high speed could cause fatal injuries.	C3 - Difficult to control or uncontrollable	When the driver loose control of the vehicle is very difficult to realize the situation and act accordingly.	C	The Lane Keeping Assistance function shall be deactivated when the camera sensor stop working.
HA-004																					