Hazard ID	Situational Analysis					
	Operational Mode	Operational Scenario	Environmental Details	Situation Details	Other Details (optional)	Item Usage (function)
HA-001	OM03 - Normal driving	OS04 - Highway	EN06 - Rain (slippery road)	SD02 - High speed	SD07 - N/A	IU01 - Correctly used
HA-002	OM03 - Normal driving	OS03 - Country Road	EN01 - Normal conditions	SD02 - High speed	SD07 - N/A	IU02 - Incorrectly used
HA-003	OM03 - Normal driving	OS10 - Road with construction site	EN01 - Normal conditions	SD02 - High speed	SD07 - N/A	IU01 - Correctly used
HA-004	OM03 - Normal driving	OS02 - City Road	EN01 - Normal conditions	SD01 - Low speed	SD07 - N/A	IU01 - Correctly used

	Hazard Identification				
Situation Description	**Function**	**Deviation**	**Deviation Details**	**Hazardous Event (resulting effect)**	**Event Details**
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 limits)	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.
Normal driving on country roads during normal conditions with high speed and incorrectly used system (Driver misuses the lane keeping assistance system as an autonomous function).	Lane Keeping Assistance (LKA) function shall apply the steering torque when active in order to stay in ego lane	DV03 - Function always activated	The LKA function is always activated and allows the driver to misuse it as an autonomous function.	EV00 - Collision with other vehicle	The driver will loose situational awareness and be unable to control the vehicle to prevent a collision.
Normal driving on a road with construction site during normal conditions 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	DV19 - Sensor detection is wrong	The LDW function detects wrong lane lines and provides haptic feedback to the driver.	EV-02 - Side collision with other traffic	The driver might react wrong and steer the vehicle into the wrong direction.
Normal driving on city roads during normal conditions with low speed and correctly used system.	Lane Keeping Assistance (LKA) function shall apply the steering torque when active in order to stay in ego lane	DV03 - Function always activated	The LKA function detects wrong lane lines.	EV-02 - Side collision with other traffic	The LKA is steering to the center of a wrongfully detected lane.

	Hazardous Event Classification				
Hazardous Event Description	**Exposure (of situation)**	**Rationale (for exposure)**	**Severity (of potential harm)**	**Rationale (for severity)**	**Controllability (of hazardous event)**
The LDW function applies too high an oscillating torque to the steering wheel (above limit)	E3 - Medium probability	Driving on wet roads	S3 - Life-threatening or fatal injuries	Driving at high speeds	C3 - Difficult to control or uncontrollable
The LKA function is always activated and allows misuse as an autonomous function.	E2 - Low probability	Driving on country roads and misusing the system	S3 - Life-threatening or fatal injuries	Driving at high speeds	C3 - Difficult to control or uncontrollable
The LDW function provides a wrong feedback to the driver who reacts wrong and collides with other traffic.	E4 - High probability	Driving on highway with a construction site	S3 - Life-threatening or fatal injuries	Driving at high speeds	C0 - Controllable in general
The LKA function is always activated, steers to the center of a wrong lane and leaves no time for the driver to react.	E4 - High probability	Driving on city roads	S1 - Light and moderate injuries	Driving at low speeds	C3 - Difficult to control or uncontrollable

	Determination of ASIL and Safety Goals	
Rationale (for controllability)	**ASIL Determination**	**Safety Goal**
Driver is unable to control steering wheel therefore can not control vehicle	ASIL C	The oscillating steering torque from the lane departure warning function shall be limited
Driver has hands off the steering wheel therefore can not control the vehicle.	ASIL B	The lane keeping assistance function shall be limited and the additinoal steering torque shall end after a given time interval so that the driver cannot misuse the system for autonomous driving.
Driver has hands on the steering wheel and actively wants to change direction but might react wrong.	QM	The lane departure warning function should turn off if the camera sensor can not detect lanes correctly.
Driver is suprised by the torque to the steering wheel and has no time to react.	ASIL B	The lane keeping assistance function shall be turned off at low speeds