<table>
<thead>
<tr>
<th>No.</th>
<th>Hazards</th>
<th>Severity</th>
<th>Causal Factors</th>
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</thead>
</table>
| 1a  | System Dysfunction due to failure of Object detection system            | Catastrophic | Object detection component failure (camera, radar or motion sensors)  
Communication error (no signal)                                                                 |
| 1b  | Malfunctioning of the System due to Incorrect input from Object detection System | Catastrophic | Corrupted communication (wrong signal) and  
Malfunctioning of camera, radar and motion sensors  
Delayed communication (System will not work on time)                                                                 |
| 2a  | Incorrect and missing calculation of Vehicle status and collision Probability due to Failure or malfunctioning of Vehicle Complex sensors | Catastrophic | Failure of vehicle sensors  
Communication error (no signal)  
Delayed communication (System will not work on time)  
Malfunctioning of sensors (Incorrect values sent by sensors)                                                                 |
| 3a  | Missing collision warning signal - If rest of the System is working properly then the Active Safety will prevent from collision | Negligible | Inadequate collision assessment algorithm, Failure of warning indicator  
Malfunctioning of warning indicator, Incomplete controller process model  
Failure of collision estimator, Malfunctioning of collision estimator  
Incorrect vehicle or object status, Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |
| 3b  | If Warning stopped too soon then it can cause accident-If everything else will work then the Active Safety will handle the situation | Negligible | Failure of warning indicator  
Malfunctioning of warning indicator  
Communication error                                                                 |
| 4a  | Missing system reset signal can cause collision with divider or other objects due to unwanted auto braking | Negligible | Brake pedal sensor failure  
Communication error (no signal)  
Delayed communication (System will not reset on time and will apply brakes)                                                                 |
| 5a  | Incorrect brake pressure determination due to missing vehicle status signal | Catastrophic | Failure of vehicle sensor complex (2a)  
Malfunctioning of collision controller due to incomplete process model  
Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |
| 6a  | Incorrect brake pressure determination due to missing Object status signal | Catastrophic | Failure of Object detection (1a)  
Malfunctioning of collision controller due to incomplete process model  
Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |
| 7a  | System Dysfunction due to missing collision assessment signal            | Catastrophic | Component failures in Object detection and vehicle complex signal (1a and 2a)  
Failure of collision probability estimator  
Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |
| 7b  | System will not work as intended due to unsafe (incorrect) Collision Assessment Signal | Catastrophic | Malfunctioning of Collision probability estimator  
Incorrect input by vehicle and object status providers  
Delayed communication (System will not work on time)                                                                 |
| 7c  | Unwanted/Undesired auto braking due to False collision assessment signal | Moderate | Malfunctioning of Collision probability estimator  
Malfunctioning of collision controller due to incomplete process model                                                                 |
| 8a  | Collision with the road divider, other things and also vehicle can slip due to Missing Reduce Torque signal | Moderate | Malfunctioning of brake controller due to incomplete process model (Incorrect brake pressure (safe brake pressure) will cause not to send reduce torque signal)  
Incorrect input by collision-assessment signal (7b)  
Communication error (no signal), Delayed communication (System will not work on time)                                                                 |
| 9a  | System Dysfunction due to missing brake signal with appropriate (required) pressure | Catastrophic | Failure of Brake Controller components  
Brake pressure determination fails, Communication error (no signal)  
Missing collision assessment signal, vehicle and object status signals                                                                 |
| 9b  | System failure/malfunctioning as intended due to unsafe (incorrect) Brake signal | Catastrophic | Incomplete controller process model  
Malfunctioning of collision controller due to incomplete process model  
Delayed communication (System will not work on time)                                                                 |
| 9c  | Unwanted/Undesired auto braking due to False Braking signal             | Moderate | Malfunctioning of brake controller due to incomplete process model (Generation of false signal)                                                                 |
| 10a | System Dysfunction due to missing Apply Brakes signal                   | Catastrophic | Connection broken between brake pedal and brake actuator  
Failure of braking system  
Communication error (no signal)                                                                 |
| 10b | False signal due to brake system malfunctioning [Application of automatic brakes with out need] | Moderate | Malfunctioning of brake system (generation of false signal)                                                                 |
| 11a | Incorrect brake pressure determination due to missing Accelerator signal | Catastrophic | Sensor failure  
Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |
| 11b | System malfunctioning due to Missing Accelerator Signal                 | Catastrophic | Malfunctioning of sensor (Incorrect reading by sensor)                                                                 |
| 12a | Torque will not be reduced due to missing Change Transmission signal     | Catastrophic | Component failure in the Torque Controller  
Missing reduce torque signal (8)  
Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |
| 12a | Torque will not be reduced due to missing Limit air or/and fuel supply signal | Catastrophic | Component failure in the torque controller  
Malfunctioning of controller due to incorrect process model  
Missing reduce torque signal (8)  
Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |
| 12a | Torque will not be reduced due to missing Engine Switch of signal        | Catastrophic | Component failure in the torque controller  
Malfunctioning of controller due to incorrect process model  
Missing reduce torque signal (8)  
Communication error (no signal)  
Delayed communication (System will not work on time)                                                                 |