



The technical association
of the European lubricants
industry



The technical committee
of petroleum additive
manufacturers in Europe

ATIEL/ATC
Generic Exposure
Scenarios

Document 8: Health GES - Explanation of Fields

This document explains some of the key terms and phrases contained in the Health GES (Sections 1 and 2).

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Health GES - Explanation of Fields

Purpose

The purpose of this document is to explain some of the key terms and phrases contained in the Health GES (Sections 1 and 2).

The explanation of the environmental fields is contained in the following separate file:

['ATIEL-ATC Environmental GES - Explanation of Fields and Checks \(11-10-2012\) v1.0 FINAL'](#)

Each Generic Exposure Scenario (GES) describes the health (and environmental) operational conditions (OCs) and risk management measures (RMMs) for the safe handling of the product according to the boundary conditions for the GES.

The sector of the economy in which the substance is used. The three main categories are:
Industrial (SU3)
Professional (SU22)
Consumer (SU21)

The task or process which describes how the substance is used in the workplace.

Describes the scope of activities or uses covering the Exposure Scenario title and the related Use Descriptor codes.

Good occupational hygiene practice is considered to constitute measures that are routinely encountered and applied to meet the requirements of relevant workplace legislation such as regulations supporting the EU Framework Directive. A more comprehensive definition can be found in the 'Further Information' tab.

The risk management measures identified in this section apply to all the contributing scenarios covered in the Exposure Scenario.

Each Process Category (PROC) is described by a Contributing Scenario to reflect the type of activity covered. In some cases more than one PROC code has been identified for a particular activity. For further definition of the Process Category refer to the ECHA Guidance Chapter R 12 Use Descriptor System, see Tab 'Further information'

Health GES - Explanation of Fields

ATIEL/ATC Use Group B (ind) - Generic Narrative based on Boundary Conditions

Section 1	Exposure Scenario Title
Title	General use of lubricants and greases in vehicles or machinery [ATU01] - Industrial [G26]
Use Descriptor	Sector of Use: Industrial (SU3) <i>(based on ECHA Guidance Chapter 12 - see tab 'Further information')</i>
Processes, tasks, activities covered	Process Categories: PROC1, PROC2, PROC8b, PROC9 Environmental Release Categories: ERC4, ERC7 Specific Environmental Release Categories: ATIEL-ATC SPERC 4.Bi.v1
Processes, tasks, activities covered	Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities. [ATU06]
Section 2	
Operational conditions and risk management measures	
Section 2.1	
Control of worker exposure	
Product characteristics	
Physical form of product	Liquid, vapour pressure < 0.5 kPa [OC3]
Concentration of substance in product	Covers use of substance/product up to 100% (unless stated differently) [ATG01]
Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently) [G2]
Other Operational Conditions affecting worker exposure	Assumes use at not > 20°C above ambient, unless stated differently [G15] Assumes a good basic standard of occupational hygiene is implemented [G1].
Contributing Scenarios	
Risk Management Measures	
<i>Note: list RMM standard phrases according to the control hierarchy indicated in the ECHA template: 1. Technical measures to prevent release, 2. Technical measures to prevent dispersion, 3. Organisational measures, 4. Personal protection.</i>	
General measures applicable to all activities [CS135]	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop [E3] Use suitable eye protection. [PPE26] Avoid direct eye contact with product also via contamination on hands. [E73]
General exposures (closed systems) [CS15]. PROC1	No other specific measures identified. [EI20]
Initial factory fill of equipment [CS75]; Use in contained systems [CS38]. PROC2, PROC9	No other specific measures identified. [EI20]
Initial factory fill of equipment [CS75]; (open systems) [CS108] PROC8b	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour) [E40]. Avoid carrying out operation involving exposure for more than 4 hours [OC28]
Operation of equipment containing engine oils and similar [CS26]; Use in contained systems [CS38]. PROC1	No other specific measures identified. [EI20]

Short Title for the relevant GES

Describes general aspects of use that are relevant for the environment according to the ECHA Use Descriptor system.

Provides Industry Specific environmental release factors for air, water and soil based on aspects of use and product characteristics.

This section includes details of the operational conditions (OCs) and risk management measures (RMMs) relevant to control exposure. Section 2.1 covers health and section 2.2 covers the environment.

This description indicates the volatility range relevant for this substance as it applies to the ECETOC TRA modelling tool and has been applied in the

The GES defines safe use conditions for the fully formulated product (additive package or lubricant) This statement indicates that it applies to 100% of this

This refers to the fact that there are no additional (other) Risk Management Measures required beyond those which are integral to the Exposure Scenario: e.g. Good basic occupational hygiene practice; General measures applicable to all activities; Process Category definitions.

Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Equipment cleaning and maintenance [CS39]. PROC8b	Drain down system prior to equipment break-in or maintenance [E65]. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour) [E11]. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].
Equipment cleaning and maintenance [CS39]. ; Operation is carried out at elevated temperature (> 20°C above ambient temperature) [OC7] PROC8b	Drain down system prior to equipment break-in or maintenance [E65].; Provide extract ventilation to emission points when contact with warm (>50 deg C) lubricant is likely [E67]. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls [PPE18]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].
Storage [CS67] PROC1, PROC2	Store substance within a closed system [E84]
Section 2.2	Control of environmental exposure
Product characteristics	Applicability domain: product in which the risk determining substance has the following hazard profile: [ATE01] Log Kow </> number to be inserted from Environmental GES values table [ATE02] Not biodegradable. [PrC5f]/ Readily biodegradable to be inserted from Environmental GES values table [PrC5a] Vapour Pressure (pa) </> number to be inserted from Environmental GES values table [ATE03] PNEC Freshwater aquatic range (mg/l) </> number range x - y to be inserted from Environmental GES values table [ATE04]
Amounts used	</> number to be inserted from Environmental GES values table tonnes per year [A5]
Frequency and duration of use	</> number to be inserted from Environmental GES values table days/year [FD4]
Environmental factors not influenced by risk management	Local freshwater dilution factor 10 [EF1] Local marine water dilution factor 100 [EF2]
Other Operational Conditions of use affecting environmental exposure	
Negligible wastewater emissions as process operates without water contact. [OOC20]	
Release fraction to air from process (after typical onsite RMMs)	</> number to be inserted from Environmental GES values table [ATE09]
Release fraction to wastewater from process (after typical onsite RMMs):	</> number to be inserted from Environmental GES values table [ATE10]
Release fraction to soil from process (after typical onsite RMMs):	0 [ATE11]
Technical conditions and measures at process level (source) to prevent release	
Common practices vary across sites thus conservative process release estimates used [TCS1]	
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	
Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14]	
User sites are assumed to be provided with oil/water separators or equivalent and for waste water to be discharged via public sewer system. [ATE12]	
Organisation measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils [OMS2]. Sludge should be incinerated, contained or reclaimed [OMS3].	
Conditions and measures related to municipal sewage treatment plant	
Estimated substance removal from wastewater via domestic sewage treatment (%) - F _{STP}	</> number to be inserted from Environmental GES values table [STP3]
Maximum allowable site quantity (MSafe) based on OCs and RMMs as above.	</> number to be inserted from Environmental GES values table kg/d as product [ATE13]

There are potentially four category levels of glove protection that can be used. A more comprehensive definition of the four glove categories can be found in the 'Further Information' tab.

Environmental GES - Explanation of Fields and Checks' is contained in a separate file

Section 2.2	Control of environmental exposure
Conditions and measures related to external treatment of waste for disposal	External treatment and disposal of waste should comply with applicable local and/or national regulations. [ETW3].
Conditions and measures related to external recovery of waste	External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW3].
Other environmental control measures additional to above	
Section 3	Exposure Estimation
3.1. Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. [G21]	
3.2. Environment	
Used ECETOC TRA model. [EE1]	
Section 4	Guidance to check compliance with the Exposure Scenario
4.1. Health	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23]	
4.2. Environment	
Guidance is based on assumed operating conditions which may not be applicable to all sites: thus scaling may be necessary to define appropriate site-specific risk management measures [DSU1].	
Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].	
If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. [DSU8]	
For further information see www.ATIEL.org/REACH_GES [ATG02]	

Environmental GES - Explanation of Fields and Checks' is contained in a separate file

as above

as above

Further Definitions

Assumes a good basic standard of occupational hygiene is implemented [G1]

Good occupational hygiene practice is considered to constitute measures that are routinely encountered and applied to meet the requirements of relevant workplace legislation such as regulations supporting the EU Framework Directive, in addition to specific RMM identified in the Exposure Scenario. These may include, but are not limited to:

- Risk assessment of local workplace activities
- Procedures supporting safe handling and maintenance of controls
- Education and training of workers in understanding the hazards and control measures relevant to their activities
- Provision of general ventilation
- Good housekeeping and prompt clearance of spillages
- Appropriate selection, testing and maintenance of equipment used to control exposure, e.g. Personal Protective Equipment (PPE), Local Exhaust Ventilation
- Draining of equipment prior to maintenance; retention of drained material in sealed storage pending disposal or recycling
- Regular supply and laundering of work clothing; provision of washing and changing facilities; eating and smoking only in designated areas separate from the workplace

This is reflected in Section 2.1 of the Exposure Scenarios by use of the phrase 'Assumes a good basic standard of occupational hygiene is implemented' phrase code G1.

Definition of glove phrases [PPE15] - [PPE18]

Wear suitable gloves tested to EN374 [PPE15]

'Suitable gloves' refers to those made of materials offering permeation resistance to the substance. Appropriate materials are typically included within Section 8 of the SDS. It assumes appropriate selection and use of the glove for the task(s).

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training [PPE16]

'Chemically resistant gloves', as per 'suitable gloves'.

'Basic employee training' refers to training in the correct glove selection, donning/removal procedure to minimise skin contamination, glove cleaning and replacement regime, plus immediate hand washing following possible contamination.

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17]

'Chemically resistant gloves', as above.

'Specific activity training' refers to supplementing 'basic employee training' with training carried out for a specific task to minimise potential for skin contact.

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls [PPE18]

In addition to the above, 'Intensive management supervision controls' refers to the active management of staff in assuring the ongoing use of gloves and associated procedures. Only applicable to industrial scenarios.

Download a copy of ECHA Guidance Document Chapter R12 (Version 2 March 2010) applied in the development of the Use Descriptor mapping for the ATIEL/ATC GES;



R12 information_requirements_r12_en.pdf