

The technical association of the European lubricants industry



The technical committee of petroleum additive manufacturers in Europe

ATIEL/ATC
Generic Exposure
Scenarios

# Document 5b: GES Use Groups B-F (industrial & professional

This spreadsheet provides the different ATIEL-ATC Generic Exposure Scenarios for Use Groups B-F.

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## **GES Use Groups B - F**

#### **Purpose**

The purpose of this spreadsheet is to provide you with the different ATIEL-ATC Generic Exposure Scenarios (GESs) for the Use Groups B - F.

#### What is in this spreadsheet

In this spreadsheet you will find a number of tabs to assist you with completing your GESs, one for each use Group B-F split according to industrial (i) and professional (p) uses, as follows:

- a. Use Group B(i): General use of lubricants and greases in vehicles or machinery Industrial
- b. Use Group B(p): General use of lubricants and greases in vehicles or machinery Professional
- c. Use Group C(i): Use of lubricants and greases in open systems Industrial
- d. Use Group C(p): Use of lubricants and greases in open systems Professional
- $e.\ Use\ Group\ D(i): Use\ of\ lubricants\ in\ open\ high\ temperature\ processes\ -\ Industrial$
- f. Use Group E(i): Handling and dilution of metal working fluid concentrates Industrial
- g. Use Group F(i): Use of lubricants in high energy open processes Industrial
- h. Use Group Fp): Use of lubricants in high energy open processes Professional

#### Other spreadsheets

In a separate spreadsheet you will find the values to be inserted in the environmental section depending on the RDS and again for each use Group B-F split according to industrial and professional uses.

A number of other spreadsheets and documents are available on the ATIEL website to assist you with your task.

## ATIEL/ATC Use Group B (ind) - Generic Exposure Scenario 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)
	Process Categories: PROC1, PROC2, PROC8b, PROC9
	Environmental Release Categories: ERC4, ERC7 Specifc 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	Control of Worker exposure
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	Assumes use at not > 20°C above ambient, unless stated differently [G15]
exposure Contributing Scenarios	Assumes a good basic standard of occupational hygiene is implemented [G1].  Risk Management Measures
contributing scenarios	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.
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 contaminatio 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  Initial factory fill of equipment [CS75];	No other specific measures identified. [El20]  No other specific measures identified. [El20]
Use in contained systems [CS38]. PROC2, PROC9	
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]
and similar [CS26]; Use in contained systems [CS38].	No other specific measures identified. [El20]
PROC1 Equipment cleaning and maintenance [CS39]. PROC8b	Drain down system prior to equipment break-in or maintenance [E65]. Provide a good standard of general ventilation (no 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]	Store substance within a closed system [E84]
PROC1, PROC2	Control of anyiranmental avaccura
Section 2.2 Amounts used	Control of environmental exposure
EU tonnage (tonnes per year) [ATE09]	insert value from Environmental GES values table
Fraction of EU tonnage used in region [A1]	0.1
Fraction of Regional tonnage used locally [A3]	0.1
Frequency and duration of use	
Emission days (days/year) [FD4]	300
Considerance and for the constant in the const	
Environmental factors not influenced by risk ma	snagernern
Local freshwater dilution factor [EF1]	10
Local neonwater unution factor [EFT]	

Section 2.2	Control of environmental exposure
Local marine water dilution factor [EF2]	100
Other given operational conditions affecting env	ironmental exposure
Negligible wastewater emissions as process ope	erates without water contact. [OOC20]
Release fraction to air from process (after typical onsite RMMs) [ATE11]	5.0 E-05
(after typical onsite RMMs and before (municipal) sewage treatment plant): [ATE12]	insert value from Environmental GES values table
Release fraction to soil from process (after typical onsite RMMs): [ATE13]	0
Technical conditions and measures at process leading	evel (source) to prevent release
Common practices vary across sites thus conse	rvative process release estimates used [TCS1]
Technical onsite conditions and measures to rec	duce 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/v	vater separators or equivalent and for waste water to be discharged via public sewer system.[ATE14]
Organisational measures to prevent/limit release Do not apply industrial sludge to natural soils [O	
Sludge should be incinerated, contained or recla	imed [OMS3].
Conditions and measures related to municipal s	ewage treatment plant
Estimated substance removal from wastewater via domestic sewage treatment (%) - $F_{STP}$ [STP3]	insert value from Environmental GES values table
Assumed domestic sewage treatment plant flow (m³/d) [STP5]	2.00E+03
based on OCs and RMMs as above (kg/day): IATE151	insert value from Environmental GES values table
Conditions and measures related to external tree	
External treatment and disposal of waste should	comply with applicable local and/or national regulations. [ETW3].
Conditions and measures related to external rec	overy of waste
External recovery and recycling of waste should	comply with applicable local and/or national regulations. [ERW1]
Other environmental control measures additional	I to above
None [ATE16]	
Section 3 3.1. Health	Exposure Estimation
	onditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that
3.2. Environment	
Used ECETOC TRA model. [EE1]	
	Guidance to check compliance with the Exposure Scenario
4.1. Health Where other Risk Management Measures/Opera	ational 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 condi management measures [DSU1].	tions which may not be applicable to all sites: thus scaling may be necessary to define appropriate site-specific risk
Further details on scaling and control technologi	es 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/REA	CH_GES [ATG02]

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## ATIEL/ATC Use Group B (prof) - Generic Exposure Scenario based on Boundary Conditions

Section 1	Exposure Scenario Title		
Title	General use of lubricants and greases in vehicles or machinery [ATU01] -		
	Professional [G27]		
Use Descriptor	Professional (SU22)		
	PROC1, PROC2, PROC8a, PROC8b, PROC20		
	ERC9a, ERC9b Specifc Environmental Release Categories: ATIEL-ATC SPERC 9.Bp.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 2.4	Control of worker expective		
Section 2.1 Product characteristics	Control of worker exposure		
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		
	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.		
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]		
Operation of equipment containing engine oils	No other specific measures identified [El20].		
and similar [CS26]; Use in contained systems [CS38] PROC1			
Material transfers [CS3].; Non-dedicated facility [CS82] PROC8a	Avoid carrying out activities involving exposure for more than 4 hours [OC28] Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].		
Equipment cleaning and maintenance [CS39].; Dedicated facility [CS81] PROC8b, PROC20	Drain down system prior to equipment break-in or maintenance [E65]. 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		
Amounts used			
EU tonnage (tonnes per year) [ATE09]	insert value from Environmental GES values table		
Fraction of EU tonnage used in region [A1]			
Fraction of Regional tonnage used locally [A3]	0.1 0.1		
Frequency and duration of use			
Emission days (days/year) [FD4]	365		
Environmental factors not influenced by risk ma	nagement		
Local freshwater dilution factor [EF1]	10		
Local marine water dilution factor [EF2]	100		
Other given operational conditions affecting env Negligible wastewater emissions as process op	·		
	insert value from Environmental GES values table		
Release fraction to wastewater from process	5.005.04		
(after typical onsite RMMs and before (municipal) sewage treatment plant): [ATE12] Release fraction to soil from process (after	5.00E-04		
typical onsite RMMs): [ATE13]  Technical conditions and measures at process	1.00E-03		
Common practices vary across sites thus conse	ervative 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]			
Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils [OMS2].			
Sludge should be incinerated, contained or recl	Sludge should be incinerated, contained or reclaimed [OMS3].		
Conditions and measures related to municipal s	ewage treatment plant		

Section 2.2	Control of environmental exposure
Estimated substance removal from wastewater via domestic sewage treatment (%) - F <sub>STP</sub> [STP3]	insert value from Environmental GES values table
Assumed domestic sewage treatment plant flow (m³/d) [STP5]	2.00E+03
based on OCs and RMMs as above (kg/day): [ATE15]	insert value from Environmental GES values table
Conditions and measures related to external tre	atment 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 rec	covery of waste
External recovery and recycling of waste should	comply with applicable local and/or national regulations. [ERW1]
Other environmental control measures additional	al to above
None [ATE16]	
Section 3	Exposure Estimation
3.1. Health	
The Risk Management Measures/Operational C covers this product. [ATH01]	onditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that
3.2. Environment	
Used ECETOC TRA model. [EE1]	
	Guidance to check compliance with the Exposure Scenario
4.1. Health	
Where other Risk Management Measures/Oper	ational 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 cond management measures [DSU1].	tions which may not be applicable to all sites: thus scaling may be necessary to define appropriate site-specific risk
urther details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html) [DSU4].)	
f 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/REA	ACH_GES [ATG02]
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## ATIEL/ATC Use Group C (ind) - Generic Exposure Scenario based on Boundary Conditions

Section 1	Exposure Scenario Title	Commer
Title	Use of lubricants and greases in open systems [ATU02] - Industrial [G26]	Comme
Jse Descriptor	Sector of Use: Industrial (SU3)	ł
ose Descriptor	PROC1, PROC2, PROC7, PROC8b, PROC9, PROC10, PROC13	
	ERC4 Specifc Environmental Release Categories: ATIEL-ATC SPERC 4.Ci.v1	
Processes, tasks, activities covered	Covers use of lubricants and greases in open systems, including application of lubricant to work pieces or equipment by dipping, brushing or spraying (without exposure to heat), e.g. mould releases, corrosion protection, slideways. Includes associated product storage, material transfers, sampling and maintenance activities. [ATU07]	
Section 2	Operational conditions and risk management measures	1
Section 2.1	Control of worker avecause	!
roduct characteristics	Control of worker exposure	
hysical form of product	Liquid, vapour pressure < 0.5 kPa [OC3].	
concentration of substance in product requency and duration of use	Covers use of substance/product up to 100% (unless stated differently) [ATG01]  Covers daily exposures up to 8 hours (unless stated differently) [G2]	1
other Operational Conditions affecting worker	Assumes use at not > 20°C above ambient, unless stated differently [G15]	
exposure Contributing Scenarios	Assumes a good basic standard of occupational hygiene is implemented [G1].  Risk Management Measures	
	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.	
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]	
	Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying [E4]  Use suitable eye protection. [PPE26] Avoid direct eye contact with product also via contamination on hands. [E73]	
Material transfers [CS3]. Manual [CS34].	Avoid carrying out activities involving exposure for more than 1 hour [OC27]	1
PROC8b Material transfers [CS3].; Automated process with (semi) closed systems CS93]	Ensure material transfers are under containment or extract ventilation [E66].	
PROC8b, PROC9		1
Coller, spreader, flow application [CS98]	Provide extract ventilation to points where emissions occur [E54].	<u> </u>
praying [CS10].	Carry out in a vented booth or extracted enclosure [E57]. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].	1
reatment by dipping and pouring [CS35]. ROC13	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour) [E40]. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls [PPE18].	
Equipment cleaning and maintenance [CS39]. POC8b	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].	
Storage [CS67]	Store substance within a closed system. [E84]	1
PROC1, PROC2 Section 2.2	Control of environmental exposure	
mounts used		
U tonnage (tonnes per year) [ATE09]	insert value from Environmental GES values table	]
raction of EU tonnage used in region [A1]	0.1	1
Fraction of Regional tonnage used locally [A3]	0.1	1
Frequency and duration of use		
Emission days (days/year) [FD4]	300	Use 20 days t TriPP, CAS 1
		6, EC 204-11 This value is default for low tonnage base ECHA guidan The data is for information or and has been by the supplied determine the
		use quantity ( for the produc
Environmental factors not influenced by risk ma	inagement	
ocal freshwater dilution factor [EF1]	10	1
_ocal marine water dilution factor [EF2]	100	

Release fraction to wastewater from process insert value from Environmental GES values table (after typical onsite RMMs) and before (municipal) sewage treatment plant): [ATE12]  Release fraction to soil from process (after ypical onsite RMMs); [ATE13]  Rechards conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used [TCS1]  Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used [TCS1]  Technical consist conditions and measures to reduce or limit discharges, air emissions and releases to soil (Treat air emission to provide a byte plant emoval efficiency of (%): [TCR7]  Treat air emission to provide a byte preventive process release estimates used [TCS1]  User sites are assumed to be provided with oil/water separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Discriptional discription of the preventive states are separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Discriptions and measures related to municipal sewage treatment (%) on cityph (individual soils [OMS3])  Studies hould be incinerated, contained or reclaimed [OMS3].  Conditions and measures related to municipal sewage treatment glant.  Estimated substance removal from wastewater insert value from Environmental GES values table.  SESTP3]  Assumed domestic sewage treatment (%) - Farp (STP3)  Assumed domestic sewage treatment plant (one (m*)) (STP3)  Maximum allowable site quantity (MSale) insert value from Environmental GES values table (STP4)  Discriptions and measures related to external treatment of waste for disposal (STP4)  Discriptions and measures related to external treatment of waste for disposal (STP4)	Section 2.2	Control of environmental exposure	
ypical onsite RMMs   ATE11]  Release fraction to sale from process insert value from Environmental GES values table (unicipal) severage treatment plant (ATE12)  Release fraction to sale from process (after yourseld to process the process of the process (after yourseld process) and (source) to process release estimated (ATE12)  Release fraction to sale from process (after yourseld to process release estimated (ATE12)  Release fraction to sale from process (after yourseld to process release estimated (ATE12)  Release fraction to sale from process (after yourseld to process release estimated (ATE12)  Release fraction to provide a hybrid removal (ATE12)  Release fraction and reasours related to municipal sewage treatment plant (ATE12)  Release fraction and reasours related to municipal sewage treatment plant (ATE12)  Release fraction to the fraction of the serve value from Environmental GES values table (ATE12)  Release fraction to the sewage treatment plant (ATE12)  Release fraction and reasours related to external treatment of value for disposal (ATE12)  Release fraction and reasours related to external treatment of value for disposal (ATE12)  Release fraction and r	Negligible wastewater emissions as process op-	erates without water contact. [OOC20]	
(after typical onsite RMMs and before immunicapils except extrament plant; (APET2) Release Fraction to soil from process (after your control of the process	Release fraction to air from process (after typical onsite RMMs) [ATE11]	5.0 E-05	
ypical onsite RMMs]; [ATE13]  Common practices vary across sites thus conservative process release estimates used [TCS1]  Enterior conditions and measures at process level focusion by process release estimates used [TCS1]  Teet at ir emission to provide a typical removal esticiony of (%): [TCR7]  Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14]  User sites are assumed to be provided with oli/water separators or equivalent and for waste vater to be discharged via public sewer system. [ATE14]  Discussational measures to proventification on site to one tapply industrial studge to natural soils [OMS2].  Studge should be incinerated, contained or reclaimed [OMS3].  Studge should be incinerated or manufactured in the student [OMS3].  Studge should be incinerated to external treatment plant  (Insert value from Environmental GES values table)  Assumed domestic sewage treatment plant  (Insert value from Environmental GES values table)  Assumed and onessures related to external treatment of waste for disposal  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ETW3].  Discretion 3  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Expo	(after typical onsite RMMs and before	insert value from Environmental GES values table	
Common practices vary across sites thus conservative process release estimates used [TCS1] Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide a typical removal (FCS1) Treat air emission to provide air emission (FCS1) Treat air emission to provide air emissi	Release fraction to soil from process (after typical onsite RMMs): [ATE13]	0	
Treat air emission to provide a typical removal price as in emissions and releases to soil Treat air emission to provide a typical removal perfection of (%): [TCRT] 70  Servent discharge of undiscolved substance to or recover from onsite wastewater. [TCR14]  User sites are assumed to be provided with oliviwater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  User sites are assumed to be provided with oliviwater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  User sites are assumed to be provided with oliviwater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  User sites are assumed to be provided with oliviwater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  User sites are successful as the contained of the contained (OMS3).  Conditions and measures related to municipal seware treatment plant and oditions and measures related to municipal seware treatment of the form Environmental GES values table assumed domestic sewage treatment plant [www.dip.com/di			
Treat air emission to provide a typical removal efficiency of (%) [TGR7]  Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14]  User sites are assumed to be provided with oilwater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Do not apply industrial sludge to natural soils [OMS2].  Studge should be incinerated, contained or reclaimed [OMS3].  Conditions and measures related to municipal sewage treatment plant  Estimated substance removal from wastewater   most value from Environmental GES values table   via domestic sewage treatment (%) - F <sub>5TP</sub> STP3]  Assumed domestic sewage treatment plant   2,00E+03   llow (m³/d) [STP5]  Assumed domestic sewage treatment plant   2,00E+03   llow (m³/d) [STP5]  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. [ERW1]  Differ environmental control measures additional to above   Vone [ATE16]  Exposure Estimation   S.1. Health   The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that zovers this product. [ATH01]  3.2. Environment   Used EGETOC TRA model. [EE1]  Section 4   Suidance to check compliance with the Exposure Scenario   4.2. Environment   Used EGETOC TRA model. [EE1]  Section 4   Suidance to check compliance with the Exposure Scenario   4.2. Environment   4.2. Environment   4.3. Environment   4.4. Environment   5.4. Environment   6.4. Environment   7.5. Environment   8.5. Environment   8.6. Environment   9.6. Exposure Estimation of unsafe use (i.e., RCRS > 1), additional RMMs or a site-specific chemical safety assessment is required. [DSU8]			
User sites are assumed to be provided with oil/water separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the provided with oil/water separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the discharged via public sewer system. [ATE14]  Department of the discharged via public sewer system. [ATE14]  Department of wastewater for several public sewage treatment plant [Self-value from Environmental GES values table via domestic sewage treatment (%) - F <sub>STP</sub> STP3]  STP3]  STP3]  Maximum allowable site quantity (MSate) insert value from Environmental GES values table via domestic sewage treatment plant [low (m³/d) [STP5]]  Maximum allowable site quantity (MSate) insert value from Environmental GES values table via domestic sewage treatment plant [low (m³/d) [STP5]]  Maximum allowable site quantity (MSate) insert value from Environmental GES values table via public sewers as the sewer of the sewer o			
Or not apply industrial studge to natural soils [OMS2]. Studge should be incinerated, contained or reclaimed [OMS3]. Conditions and measures related to municipal sewage treatment plant. Estimated substance removal from wastewater (%) - Fsrp STP3] STP3] Assumed domestic sewage treatment (%) - Fsrp STP3] Maximum allowable site quantity (MSafe) Insert value from Environmental GES values table va	Prevent discharge of undissolved substance to	or recover from onsite wastewater. [TCR14]	
Do not apply industrial sludge to natural soils [OMS2].  Sludge should be incinerated, contained or reclaimed [OMS3].  Conditions and measures related to municipal sevage treatment plant  Estimated substance removal from wastewater insert value from Environmental GES values table via domestic sewage treatment (%) - F <sub>STP</sub> STP3]  Assumed domestic sewage treatment plant  Illow (m³/d) [STP5]  Assumed domestic sewage treatment plant  Illow (m³/d) [STP6]  Maximum allowable site quantity (MSafe) insert value from Environmental GES values table based on OCs and RMMs as above (kg/dsy).  ATE15]  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. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that overs this product. [ATH01]  3.2. Environment  Used ECGTOC TRA model. [EE1]  Section 4	User sites are assumed to be provided with oil/v	vater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]	
Sludge should be incinerated, contained or reclaimed [OMS3].  Conditions and measures related to municipal sevane treatment plant  Estimated substance removal from wastewater insert value from Environmental GES values table via domestic sewage treatment (%) - F <sub>STP</sub> STP3]  Assumed domestic sewage treatment plant  Iow (m²/d) [STP5]  Maximum allowable site quantity (MSafe) insert value from Environmental GES values table vased on OCs and RMMs as above (kg/day):  ATE15]  ATE15]  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. [ERW1]  Dither environmental control measures additional to above  None [ATE16]  Section 3  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that overs this product, [ATH01]  3.2. Environment  Used CCETOC 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  Sudiance 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 nanagement 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]			
Conditions and measures related to municipal sewage treatment plant  Estimated substance removal from wastewater insert value from Environmental GES values table via domestic sewage treatment (%) - F <sub>STP</sub> STP3]  Assumed domestic sewage treatment plant (low (m²/d) [STP5]  Maximum allowable site quantity (MSale) insert value from Environmental GES values table assed on OCs and RMMs as above (kg/day): ATE-15]  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. [ERW1]  Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Section 3  Experimental Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that zone that the conditions of the external recovery of the	,	•	
Estimated substance removal from wastewater (%) - F <sub>STP</sub> STP3  Assumed domestic sewage treatment (%) - F <sub>STP</sub> STP3  Assumed domestic sewage treatment plant (low (m²/d) [STP5]  Maximum allowable site quantity (MSafe) insert value from Environmental GES values table based on OCs and RMMs as above (kg/day): ATE15]  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 treatment of waste for disposal External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Section 3	Sludge should be incinerated, contained or recla	aimed [OMS3].	
Assumed domestic sewage treatment (%) - F <sub>STP</sub> STP3]  Assumed domestic sewage treatment plant low (m³/d) [STP5]  Maximum allowable site quantity (MSafe) assert value from Environmental GES values table passed on OCs and RMMs as above (kg/day). ATE15]  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. [ERW1]  Conditions and measures related to external recovery of waste external recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste external recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste external recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures related to external recovery of waste external recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures additional to above the sternal recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures additional to above the sternal recovery of waste should comply with applicable local and/or national regulations. [ERW1]  Conditions and measures and measures [Conditions are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]  S.2. Environment  Used ECETOC TRA model. [EE1]  Section 4			
Maximum allowable site quantity (MSafe) insert value from Environmental GES values table based on OCs and RMMs as above (kg/day): [ATE15]  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. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Section 3  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that zovers this product. [ATH01]  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]	via domestic sewage treatment (%) - $F_{STP}$	insert value from Environmental GES values table	
passed on OCs and RMMs as above (kg/day): (ATE15] 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. [ERW1]  Other environmental control measures additional to above  None [ATE16] Section 3	Assumed domestic sewage treatment plant flow (m³/d) [STP5]	2.00E+03	
passed on OCs and RMMs as above (kg/day): (ATE15] 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. [ERW1]  Other environmental control measures additional to above  None [ATE16] Section 3			
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. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Section 3	Maximum allowable site quantity (MSafe) based on OCs and RMMs as above (kg/day): [ATE15]	insert value from Environmental GES values table	
Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Section 3	Conditions and measures related to external tre	atment of waste for disposal	
External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Section 3	External treatment and disposal of waste should	comply with applicable local and/or national regulations. [ETW3].	
Other environmental control measures additional to above  None [ATE16]  Section 3	Conditions and measures related to external rec	overy of waste	
None [ATE16] Section 3  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]  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]	External recovery and recycling of waste should	comply with applicable local and/or national regulations. [ERW1]	
None [ATE16] Section 3  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]  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]	Other environmental control measures additional	Il to above	
Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]  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]			
The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]  3.2. Environment Used ECETOC TRA model. [EE1]  Section 4	Section 3	Exposure Estimation	
The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]  3.2. Environment Used ECETOC TRA model. [EE1]  Section 4	3.1. Health		
Used ECETOC TRA model. [EE1] Section 4	The Risk Management Measures/Operational C covers this product. [ATH01]	onditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that	
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]			
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]			
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]		Guidance to check compilance with the Exposure Scenario	
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]		ational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23]	
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]	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		
f scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. [DSU8]	management measures [DSU1].		
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For further information see www.ATIEL.org/REACH_GES [ATG02]	•	7 7 7	
	For further information see www.ATIEL.org/REA	CH_GES [ATG02]	

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## ATIEL/ATC Use Group C (prof) - Generic Exposure Scenario based on Boundary Conditions

Section 1	Exposure Scenario Title
Title	Use of lubricants and greases in open systems [ATU02]
	- Professional [G27]
Use Descriptor	Professional (SU22)
	PROC1, PROC2, PROC8a, PROC10, PROC11, PROC13  Environmental Pologgo Categories: EPC9a, EPC9a
	Environmental Release Categories: ERC8a, ERC8d Specific Environmental Release Categories: ATIEL-ATC SPERC 8.Cp.v1
Processes, tasks, activities covered	Covers use of lubricants and greases in open systems, including application of lubrixcant to work pieces or equipment by dipping, brushing or spraying (without exposure to heat), e.g. mould releases, corrosion protection, slideways. Includes associated product storage, material transfers, sampling and maintenance activities. [ATU07]
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	Control of Worker exposure
Physical form of product	Liquid, vapour pressure < 0.5 kPa [OC3].
Concentration of substance in product Frequency and duration of use	Covers use of substance/product up to 100% (unless stated differently) [ATG01]  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
	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.
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 contaminatio immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may
	develop [E3] Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying [E4]
	Use suitable eye protection. [PPE26] Avoid direct eye contact with product also via contamination on hands. [E73]
Material transfers [CS3].; Manual [CS34]. PROC8a	Avoid carrying out activities involving exposure for more than 1 hour [OC27]
Roller, spreader, flow application [CS98] PROC10	Provide a good standard of general ventilation. Natural ventilation is from windows and doors etc. Controlled ventilation means air is supplied or removed by a powered fan. [E1]. Avoid carrying out activities involving exposure for more than 4 hours [OC28]Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].
Spraying [CS10]. PROC11	Provide a good standard of general ventilation. Natural ventilation is from windows and doors etc. Controlled ventilation means air is supplied or removed by a powered fan. [E1]. Avoid carrying out activities involving exposure for more than 1 hour [OC27]Wear a respirator conforming to EN140 with Type A/P2 filter or better {PPE29}; Wear suitable coveralls to prevent exposure to the skin [PPE27].;
Treatment by dipping and pouring [CS35]. PROC13	Wear chemically resistant gloves (tested to EN374) in combination with specific activity training [PPE17].  Provide a good standard of general ventilation. Natural ventilation is from windows and doors etc. Controlled ventilation means air is supplied or removed by a powered fan. [E1].
Equipment cleaning and maintenance [CS39]. PROC8a	Drain down system prior to equipment break-in or maintenance [E65]. Provide a good standard of general ventilation.  Natural ventilation is from windows and doors etc. Controlled ventilation means air is supplied or removed by a powered fan. [E1]. Avoid carrying out activities involving exposure for more than 4 hours [OC28] Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].
Storage [CS67]	Store substance within a closed system. [E84]
PROC1, PROC2 Section 2.2	Control of environmental exposure
Amounts used	
EU tonnage (tonnes per year) [ATE09]	insert value from Environmental GES values table
Fraction of EU tonnage used in region [A1]	0.1
Fraction of Regional tonnage used locally [A3]	0.1
Frequency and duration of use	
Emission days (days/year) [FD4]	365
Environmental factors not influenced by risk ma	magement
Local freshwater dilution factor [EF1]	10
Local marine water dilution factor [EF2]	100
Other given operational conditions affecting env	vironmental exposure
Negligible wastewater emissions as process op	erates without water contact. [OOC20]
typical onsite RMMs) [ATE11]	insert value from Environmental GES values table
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): [ATE12]	5.00E-04
Release fraction to soil from process (after typical onsite RMMs): [ATE13]	1.00E-03
Technical conditions and measures at process Common practices vary across sites thus conse	level (source) to prevent release ervative process release estimates used [TCS1]
	duce or limit discharges, air emissions and releases to soil
Prevent discharge of undissolved substance to	
Organisational measures to prevent/limit releas	C HOIL GILC

Section 2.2	Control of environmental exposure	
Do not apply industrial sludge to natural soils [OMS2].		
Sludge should be incinerated, contained or recl	aimed [OMS3].	
Conditions and measures related to municipal s	sewage treatment plant	
Estimated substance removal from wastewater via domestic sewage treatment (%) - F <sub>STP</sub> [STP3]	insert value from Environmental GES values table	
Assumed domestic sewage treatment plant flow (m³/d) [STP5]	2.00E+03	
based on OCs and RMMs as above (kg/day): [ATE15]		
Conditions and measures related to external tre		
External treatment and disposal of waste shoul	d comply with applicable local and/or national regulations. [ETW3].	
Conditions and measures related to external re	covery of waste	
External recovery and recycling of waste should	d comply with applicable local and/or national regulations. [ERW1]	
Other environmental control measures addition	al to above	
None [ATE16]		
Section 3	Exposure Estimation	
3.1. Health		
The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]		
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/RE.		

## ATIEL/ATC Use Group D (ind) - Generic Exposure Scenario based on Boundary Conditions

Section 1	Exposure Scenario Title	Comments
Title	Use of lubricants in open high temperature processes [ATU03]	
	- Industrial [G26]	
Use Descriptor	Industrial (SU3)	
	Process Categories: PROC1, PROC2, PROC8b, PROC13	
	Environmental Release Categories: ERC4	
Processes, tasks, activities covered	Covers use of lubricants in open high temperature processes, e.g. quenching fluids, glass release agents. Includes	
Coation 2	associated product storage, material transfers, sampling and maintenance activities. [ATU08]	
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	
Contributing Scenarios	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	
General measures applicable to all activities	protection.  Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if	
[CS135]	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] Other skin protection measures such as impervious suits and face shields may be required during high dispersion	
	activities which are likely to lead to substantial aerosol release, e.g. spraying. [E4]	
	Use suitable eye protection. [PPE26] Avoid direct eye contact with product also via contamination on hands. [E73]	
Filling / preparation of equipment from drums or	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour) [E40].	
containers. [CS45].;	, , , , , , , , , , , , , , , , , , , ,	
Dedicated facility [CS81] PROC8b		
Dipping, immersion and pouring [CS4].	Carry out in a vented booth or extracted enclosure [E57].	
(closed systems) [CS107] PROC13		
Dipping, immersion and pouring [CS4].	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour) [E40]. Wear chemically	
(open systems) [CS108]	resistant gloves (tested to EN374) in combination with specific activity training [PPE17].	
PROC13 Material transfers [CS3].	Drain down system prior to equipment break-in or maintenance [E65]. Provide a good standard of general ventilation (not	
Equipment cleaning and maintenance [CS39].	less than 3 to 5 air changes per hour) [E11] Avoid carrying out operation involving exposure for more than 4 hours.	
Dedicated facility [CS81] PROC8b	[OC28] Wear suitable gloves tested to EN374 [PPE15]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].	
Storage [CS67]	Store substance within a closed system [E84]	
PROC1, PROC2	Control of anning annual laws are	
Section 2.2	Control of environmental exposure	
No exposure assessment presented for the env	rironment. [G40].	Analysis of products
		assigned to use group Di has
		determined that
		typically they do not contain
		environmentally classifiied
		components. Section 2.2 may be
		suppressed.
Amounts used		
EU tonnage (tonnes per year) [ATE09]		
Fraction of EU tonnage used in region [A1]		
Fraction of Regional tonnage used locally [A3]		
Frequency and duration of use		
Frequency and duration of use		
	nagement	
Emission days (days/year) [FD4] Environmental factors not influenced by risk ma	nagement	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk ma  Local freshwater dilution factor [EF1]	nagement	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk ma  Local freshwater dilution factor [EF1]  Local marine water dilution factor [EF2]		
Emission days (days/year) [FD4]  Environmental factors not influenced by risk ma  Local freshwater dilution factor [EF1]  Local marine water dilution factor [EF2]		
Emission days (days/year) [FD4]  Environmental factors not influenced by risk ma  Local freshwater dilution factor [EF1]  Local marine water dilution factor [EF2]		
Emission days (days/year) [FD4]  Environmental factors not influenced by risk ma  Local freshwater dilution factor [EF1]  Local marine water dilution factor [EF2]  Other given operational conditions affecting env	vironmental exposure	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk matching the factor of the factor [EF1]  Local freshwater dilution factor [EF2]  Other given operational conditions affecting environmental factor of the factor o	vironmental exposure	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk matching the factor of the factor [EF1]  Local marine water dilution factor [EF2]  Other given operational conditions affecting environmental factor of the factor	vironmental exposure	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk matching the factor of the factor [EF1]  Local marine water dilution factor [EF2]  Other given operational conditions affecting environmental factor of the factor	vironmental exposure	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk matching the factor should be supported by the matching that the factor should be supported by the	vironmental exposure	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk matching the factor should be supported by the factor should be supported by risk matching the supported by risk matching the factor should be supported by risk matching the factor should be supported by risk matching the factor should be supported by risk matching the supported by risk matchi	vironmental exposure	
Emission days (days/year) [FD4]  Environmental factors not influenced by risk matching the free free factors and influenced by risk matching the free free factors and influenced by risk matching the free free free free free free free fr	vironmental exposure	

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Section 2.2	Control of environmental exposure	
Technical onsite conditions and measures to	reduce or limit discharges, air emissions and releases to soil	
Organisational measures to prevent/limit rele	saga from sita	
Organisational measures to prevent limit rele	add nom and	
Conditions and measures related to municipal	al sewage treatment plant	
Estimated substance removal from wastewa via domestic sewage treatment (%) - F: [STP3]		
Assumed domestic sewage treatment plant flow (m³/d) [STP5]		
Maximum allowable site quantity (MSa based on OCs and RMMs as above (kg/da [ATE15]		
Conditions and measures related to external	treatment of waste for disposal	
Conditions and measures related to external	recovery of waste	
Other environmental control measures additi	ional to above	į
Section 3	Exposure Estimation	
3.1. Health		
The Risk Management Measures/Operationa covers this product. [ATH01]	al Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that	
3.2. Environment		
No exposure assessment presented for the e	environment. [G40].	Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified components.
Section 4	Guidance to check compliance with the Exposure Scenario	
	perational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23]	
4.2. Environment		
No exposure assessment presented for the e	environment. [G4U].	Analysis of products assigned to use group Di has determined that typically they do not contain environmentally classified
		components.

## ATIEL/ATC Use Group E (ind) - Generic Exposure Scenario based on Boundary Conditions

Section 1	Exposure Scenario Title	Comments
Title	Handling and dilution of metal working fluid concentrates [ATU04]	Commonto
Lac Descriptor	- Industrial [G26] Industrial (SU3)	
Use Descriptor	Process Categories: PROC1, PROC2, PROC5, PROC8b	
	Environmental Release Categories: ERC2 Specifc Environmental Release Categories: ATIEL-ATC SPERC 2.Ei.v1	
Processes, tasks, activities covered	Handling and dilution of metal working fluid concentrates. Includes associated product storage, material transfers, sampling and maintenance activities. [ATU09]	
Section 2	Operational conditions and risk management measures	
Section 2.1	Control of worker exposure	l
Product characteristics	Control of worker exposure	
Physical form of product	Liquid, vapour pressure < 0.5 kPa [OC3].	
Concentration of substance in product Frequency and duration of use	Covers use of substance/product up to 100% (unless stated differently) [ATG01]  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  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.	
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]	
Filling / preparation of equipment from drums or	Use suitable eye protection. [PPE26] Avoid direct eye contact with product also via contamination on hands. [E73]  Avoid carrying out activities involving exposure for more than 4 hours [OC28]	
containers. [CS45]. PROC5, PROC8b		
Process sampling [CS2].  PROC8b  Equipment cleaning and maintenance [CS39].	Avoid carrying out activities involving exposure for more than 4 hours [OC28]  Drain down system prior to equipment break-in or maintenance [E65]. Avoid carrying out activities involving exposure for	
PROC8b	more than 4 hours. [OC28] 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 Amounts used	Control of environmental exposure	
Amounts used		ı
EU tonnage (tonnes per year) [ATE09] Fraction of EU tonnage used in region [A1]	insert value from Environmental GES values table	
, , , , , , , , , , , , , , , , , , ,	0.1	1
Fraction of Regional tonnage used locally [A3]	0.1	
Frequency and duration of use		
Emission days (days/year) [FD4]		Use 20 days for TriPP, CAS 115-86-
		6, EC 204-112-2 This value is the default for low tonnage based on ECHA guidance The data is for information only and has been used by the supplier to determine the safe use quantity (Msafe) for the product.
Environmental factors not influenced by risk ma	nagement	
Local freshwater dilution factor [EF1]	10	
Local marine water dilution factor [EF2]	100	
Other given operational conditions affecting env Water-based (oil in water emulsion) or straight		
Release fraction to air from process (after		
typical onsite RMMs) [ATE11]	insert value from Environmental GES values table	1
(after typical onsite RMMs and before (municipal) sewage treatment plant): [ATE12]		
Release fraction to soil from process (after typical onsite RMMs): [ATE13]		
	level (source) to prevent release ervative process release estimates used [TCS1] due of limit discharges air emissions and releases to soil	1

Section 2.2	Control of environmental exposure	
Treat air emission to provide a typical removal efficiency of (%): [TCR7]	70	
Prevent discharge of undissolved substance to	or recover from onsite wastewater. [TCR14]	
User sites are assumed to be provided with oil/v	water separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]	
Organisational measures to prevent/limit releas	e from site	
Do not apply industrial sludge to natural soils [C	MS2].	
Sludge should be incinerated, contained or recla	aimed [OMS3].	
Conditions and measures related to municipal s		
via domestic sewage treatment (%) - $F_{\text{STP}}$ [STP3]	insert value from Environmental GES values table	
Assumed domestic sewage treatment plant		
flow (m³/d) [STP5]	2.00E+03	
based on OCs and RMMs as above (kg/day): [ATE15]		
Conditions and measures related to external tre	atment of waste for disposal	
External treatment and disposal of waste should	d comply with applicable local and/or national regulations. [ETW3].	
Conditions and measures related to external rec	covery of waste	
External recovery and recycling of weets about	comply with applicable local and/or national regulations. [ERW1]	
, , ,		
Other environmental control measures additional	al to above	
None [ATE16]		
Section 3	Exposure Estimation	
3.1. Health		
The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product. [ATH01]		
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].		
Training Final Triessures (2001): 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]		
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## GES Use Group F (ind) - Generic Exposure Scenario based on Boundary Conditions

Section 1	Exposure Scenario Title
Title	Use of lubricants in high energy open processes [ATU05] - Industrial [G26]
Jse Descriptor	Sector of Use: Industrial (SU3)
	Process Categories: PROC1, PROC2, PROC8b, PROC17, PROC18  Environmental Release Categories: ERC4
	Specific Environmental Release Categories: ATIEL-ATC SPERC 4.Fi.v1
Processes, tasks, activities covered	Covers use of lubricants in high energy open processes, e.g. in high speed machinery such as metal rolling/forming or metal working fluids for machining and grinding. Includes associated product storage, material transfers, sampling and maintenance activities. [ATU10]
Section 2	Operational conditions and risk management measures
Section 2.1	Control of worker exposure
Product characteristics	Control of Worker exposure
Physical form of product	Liquid, vapour pressure < 0.5 kPa [OC3].
Concentration of substance in product frequency and duration of use	Covers use of substance/product up to 100% (unless stated differently) [ATG01]  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
•	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.
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]
Filling / preparation of equipment from drums of containers. [CS45].	
PROC8b  Metal machining operations [CS79]	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings [E60].
PROC17  Decration and lubrication of high energy open equipment [CS17].	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour) [E40].
PROC17, PROC18 Automated metal rolling/forming [CS80] Use in contained systems [CS38]. Operation is carried out at elevated temperature (> 20°C above ambient temperature) [OC7]	No other specific measures identified. [El20]
PROC2 Semi-automated metal rolling/forming [CS83] (open systems) [CS108]Operation is carried out at elevated temperature (> 20°C above ambient temperature) [OC7]	Provide extract ventilation to points where emissions occur [E54].
PROC17 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] Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].
Storage [CS67]	Store substance within a closed system. [E84]
PROC1, PROC2 Section 2.2	Control of environmental exposure
Amounts used	
U tonnage (tonnes per year) [ATE09] raction of EU tonnage used in region [A1]	insert value from Environmental GES values table
• • • • • •	0.1
raction of Regional tonnage used locally [A3]	0.1
requency and duration of use	
Emission days (days/year) [FD4]	300
Environmental factors act influence the second	
Environmental factors not influenced by risk ma	падетнети
Local freshwater dilution factor [EF1]	10
Local marine water dilution factor [EF2]	100
	100

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Release fraction to soil from process (after yolical onsite RMMs): [ATE13]  Fachmacl conditions and measures at process level (source) to prevent release.  Common practices vary across sites thus conservative process release estimates used [TCS1]  Treat air emission to provide a typical removal efficiency of (%); [TCR7]  Treat air emission to provide a typical removal efficiency of (%); [TCR7]  Prevent discharge of undissolved substance to or recover from onsite wastewater, [TCR14]  User sites are assumed to be provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Department of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Conditions and measures related to manufacture of the provided with olivater for manufacture of the form Emironmental GES values table waster for the form Emironmental GES values table was	Section 2.2	Control of environmental exposure	
Release fraction to air from process (after typical onate RMMs) [ATE11]  Release fraction to waterwater from process (after typical onate RMMs] and before insert value from Environmental GES values table (municipal) sevage treatment plant [TRE12]  Release fraction to soil from process (after yold onate RMMs] [ATE13]  Release fraction to soil from process (after yold onate RMMs] [ATE13]  Release fraction to soil from process (after yold onate RMMs] [ATE13]  Release fraction to soil from process (after yold onate RMMs] [ATE15]  Release fraction to soil from process (after yold onate) [ATE12]  Release fraction to soil from process (after yold onate) [ATE12]  Release fraction to soil from process (after yold onate) [ATE12]  To a second process (after yold onate) [ATE12]  To a second process (after yold on a y	Other given operational conditions affecting environmental exposure		
Assumed observed remove from process (after typical onsite RMMs and before (municipal) sewage treatment plant); [ATE12]  Release fraction to soil from process (after typical onsite RMMs); [ATE13]  Release fraction to soil from process (after typical onsite RMMs); [ATE13]  Release fraction to soil from process (after typical onsite RMMs); [ATE13]  Release fraction to soil from process (after typical onsite RMMs); [ATE13]  Release fraction to soil from process (after typical onsite RMMs); [ATE13]  Release fraction to soil from process (after typical onsite RMMs); [ATE14]  Release fraction to soil from process (after typical onsite RMMs); [ATE14]  Release fraction to soil from process (after typical onsite RMMs); [ATE14]  Release fraction to soil from process (after typical onsite RMMs); [ATE14]  Release fraction to soil from process (after typical onsite RMMs); [ATE14]  Release fraction to provide a typical femoval of the factor typical onsite typical on	Water-based (oil in water emulsion) or straight	oil (contains no water) process. [ATE10]	
Release fraction to wastewater from process (after typical onsiste RMMs and before (municipal) sewage treatment plant): [ATE12]  Release fraction to soil from process (after (municipal) sewage treatment plant): [ATE12]  Release fraction to soil from process (after (municipal) sewage treatment plant): [ATE13]  Release fraction to soil from process (after (municipal) sewage treatment plant): [ATE13]  Release fraction to soil from process (after (municipal) sewage treatment plant): [ATE14]  Technical conditions and measures at process level (source) to prevent eleases  Common practices on provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical removal efficiency of (%): [TCR7]  Treat air emission to provide a typical efficiency efficiency efficiency efficiency efficiency efficiency efficiency efficien		5.0 E-05	
Recease fraction to soil from process (after pipola) and severage treatment painty; [A1 E 12] Recease fraction to soil from process (after pipola) and selected the process and measures at photoces level focured by process release estimates used [TCS1] Technical conditions and measures at photoces level focured by process release estimates used [TCS1] Technical conditions and measures at process and selected by the process release estimates used [TCS1] Technical conditions are controlled as directions of (%). The process of the discharge, at emission to provide a hybrial removal from the process of the discharge of undissolved substance to or recover from onsite wastewater. [TCR14] To Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14] To Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14] To Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14] To Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14] To Prevent discharge of undissolved substance to or recover from onsite wastewater. [TCR14] To Prevent discharge of undissolved substance to prevent discharge of undissolved substance to prevent discharge of undissolved substance to prevent discharge of undissolved substances related to municipal sevage treatment plant flow (m²/d) [STP5] 2.00E+03  Maximum allowable site quantity (MSafe) insert value from Environmental GES values table based on OCs and RMMs as above (kg/dys): ATE15]  Conditions and measures related to external recovery of waste structure of undissolved and or national regulations. [ETW3].  Conditions and measures related to external recovery of waste structure of undissolved and or national regulations. [ETW1]  Conditions and measures related to external recovery of waste External recovery and recycling of waste should	Release fraction to wastewater from process	issect value from Environmental CES values table	
special onside RMMs; [AFE13]  Common practices vary across alter shows seed focusion by prevent releases  Common practices vary across after the conservative process release estimates used [TCS1]  Treat air emission to provide a typical removal from seed focusion and measures to resolve from onside wastewater. [TCR14]  To Prevent discharge of undiscolved substance to or recover from onside wastewater. [TCR14]  Describes are assumed to be provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Describes are assumed to be provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Describes are assumed to be provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Describes are assumed to be provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Describes an experiment of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Describes an experiment of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Describes an experiment of the provided with olivater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Conditions and measures related to municipal sevage treatment (%) - Farry (value from Environmental GES values table)  Administration and measures related to external recovery of waste sevage treatment and disposal of waste should comply with applicable local and/or national regulations. [ETW1]  Conditions and measures related to external recovery of waste  External recovery and recycling of waste should comply with applicable local and/or national regulations. [ERW1]  Describes and measures related to external recovery of waste  External recovery and recycling of waste should comply wit	(municipal) sewage treatment plant): [ATE12]		
Common practices vary across sites thus conservative process release estimates used ITCS1] Technal onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Treat air emission to provide a typical removal ficiency of (%). [TGR7]  Prevent discharge of undissolved substance to or recover from onsite wastewater, [TCR14]  User piles are assumed to be provided with olivitater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Disputs storage of undissolved substance to or recover from onsite wastewater, [TCR14]  User piles are assumed to be provided with olivitater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Disputs storage of undissolved substance is sensitive to a public sewer system. [ATE14]  Disputs storage in control of the provided with olivitater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Disputs storage in control of the provided with olivitater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Disputs storage in control of the provided with olivitater separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Disputs storage in control of the provided with public sewer system. [ATE14]  Disputs storage in control of the provided via public sewer system. [ATE14]  Disputs storage in control of the provided via public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  Disputs storage in control of the public sewer system. [ATE14]  D	typical onsite RMMs): [ATE13]		
Treat air emission to provide a typical removal private at the provided and provide			
afficiency of (%): [TCR7] 7    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. [ATE14]   Organisational measures to preventional release tron site   On ord 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   Moderation   Moderati			
User sites are assumed to be provided with oll/water separators or equivalent and for waste water to be discharged via public sewer system. [ATE14]  Omanisational measures to prevent/limit releases 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 insert value from Environmental GES values table via domestic sewage treatment (%) - F <sub>STF</sub> STP3]  STP3]  Assumed domestic sewage treatment plant  Illow (m³/d) [STP5]  2.00E+03  Maximum allowable site quantity (MSafe) insert value from Environmental GES values table based on OCs and RMMs as above (kg/day): IATE15]  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. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment the covers this product. [ATH01]  3.2. Environment  Used ECETOC TRA model. [EE1]  Section 4  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]  MAX. 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 [OSU1].  Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries-html) [DSU4].)	Treat air emission to provide a typical removal efficiency of (%): [TCR7]	70	
Oranisational 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 value from Environmental GES values table via domestic sewage treatment (%) - F <sub>STP</sub> [STP3]  Assumed domestic sewage treatment plant [low (m³/d) [STP5] 2.00E+03  Maximum allowable site quantity (MSafe) based on OCs and RMMs as above (kg/day): ATE15]  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. [ERW1]  Other environmental control measures additional to above  None [ATE16]  Section 3  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment the covers this product. [ATH01]  3.2. Environment  Sued ECETOC TRA model. [EE1]  Section 4  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. [C23]  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].)  for scaling reverse in the specific of the province of the specific chemical safety assessment is required, [DSU8]			
Do not apply industrial sludge to natural soils [OMS2].  Sludge should be incinerated, contained or reclaimed [OMS3].  Conditions and measures related to municipal sweape treatment plant Estimated substance removal from wastewater insert value from Environmental GES values table via domestic sewage treatment (%) - F <sub>STP</sub> [SSTP3]  Assumed domestic sewage treatment plant [low (m³/d) [STP5] 2.00E+03  Maximum allowable site quantity (MSafe) [insert value from Environmental GES values table based on CCs and RMMs as above (kg/day): [ATE15]  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 of waste external recovery of waste Should comply with applicable local and/or national regulations. [ERW1]  Other environmental control measures additional to above None [ATE16]  Exposure Estimation  3.1. Health  The Risk Management Measures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment the overest his product. [ATH01]  3.2. Environment  Used ECCTOC TRA model. [EE1]  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  Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23]  **Couldance 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-lor-industries-libraries.html) [DSU4].)			
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For further information see www.ATIFL.org/REACH.GES.[ATG02]			
or relation anomination ood www.mile.co.g/nchori_obo [n1002]	For further information see www.ATIEL.org/RE/	ACH_GES [ATG02]	

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## ATIEL/ATC Use Group F (prof) - Generic Exposure Scenario based on Boundary Conditions

Section 1	Exposure Scenario Title		
Title	Use of lubricants in high energy open processes [ATU05]		
	- Professional [G27]		
Use Descriptor	Professional (SU22)		
	PROC1, PROC2, PROC8a, PROC17, PROC18 Environmental Release Categories: ERC8a		
	Specifc Environmental Release Categories: ATIEL-ATC SPERC 8.Fp.v1		
Processes, tasks, activities covered	Covers use of lubricants in high energy open processes, e.g. In high speed machinery such as metal rolling/forming or		
	metal working fluids for machining and grinding. Includes associated product storage, material transfers, sampling and maintenance activities. [ATU10]		
Section 2	Operational conditions and risk management measures		
Section 2.1 Product characteristics	Control of worker exposure		
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]  Covers daily exposures up to 8 hours (unless stated differently) [G2]		
Frequency and duration of use	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		
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		
	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.		
General measures applicable to all activities	Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if		
[CS135]	hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contaminatior 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]		
Filling / preparation of equipment from drums or	Avoid carrying out activities involving exposure for more than 1 hour [OC27]		
containers. [CS45].	, g		
PROC8a Metal machining operations [CS79];	Provide extract ventilation to points where emissions occur [E54].		
PROC17	1 Totale Califolia (Commission of Commission of Cooking (204).		
Operation and lubrication of high energy open	Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour) [E40].		
equipment [CS17]. PROC17, PROC18	Avoid carrying out activities involving exposure for more than 4 hours [OC28] Or [G9] Wear a respirator conforming to EN140 with Type A filter or better. [PPE22] Wear chemically resistant gloves (tested to EN374) in combination with		
	specific activity training [PPE17].		
Equipment cleaning and maintenance [CS39]. PROC8a	Drain down system prior to equipment break-in or maintenance [E65]. Provide a good standard of general ventilation.  Natural ventilation is from windows and doors etc. Controlled ventilation means air is supplied or removed by a powered		
FROCO	fan. [E1]. Avoid carrying out activities involving exposure for more than 4 hours [OC28]. Or [G9] Wear a respirator		
	conforming to EN140 with Type A filter or better [PPE22] Retain drain downs in sealed storage pending disposal or for		
Storage [CS67]	subsequent recycle [ENVT4].		
PROC1, PROC2	Store substance within a closed system. [E84]		
Section 2.2	Control of environmental exposure		
Amounts used			
Filterance (tennes and tennes) (ATFOO)	insert who from Environmental OFO values table		
EU tonnage (tonnes per year) [ATE09]	insert value from Environmental GES values table		
Fraction of EU tonnage used in region [A1]	0.1		
Fraction of Regional tonnage used locally [A3]	0.1		
Frequency and duration of use			
Emission days (days/year) [FD4]			
, , , , , , , ,	365		
Environmental factors not influenced by risk ma	nagement		
Local freshwater dilution factor [EF1]	10		
Local marine water dilution factor [EF2]	100		
Other given operational conditions affecting env	vironmental exposure		
Water-based (oil in water emulsion) or straight	oil (contains no water) process. [ATE10]		
Delegas fraction to six from process (officer	ins and values from the viranmental CCC values table		
Release fraction to air from process (after typical onsite RMMs) [ATE11]	insert value from Environmental GES values table		
Release fraction to wastewater from process	1.00E-03		
(after typical onsite RMMs and before (municipal) sewage treatment plant) [ATE12]			
Release fraction to soil from process (after	4.005.00		
typical onsite RMMs) [ATE13]	1.00E-03		
Technical conditions and measures at process Common practices vary across sites thus conse	level (source) to prevent release ervative process release estimates used [TCS1]		
Technical onsite conditions and measures to re	duce or limit discharges, air emissions and releases to soil		
Prevent discharge of undissolved substance to			
Organisational measures to prevent/limit release from site  Do not apply industrial sludge to natural soils [OMS2].			
Sludge should be incinerated, contained or recl	•		
Conditions and measures related to municipal s	sewage treatment plant		

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Section 2.2	Control of environmental exposure
Section 2.2	Control of environmental exposure
	insert value from Environmental GES values table
Estimated substance removal from wastewate	
via domestic sewage treatment (%) - F <sub>STI</sub>	·
[STP3]	
Assumed domestic sewage treatment plant	
flow (m <sup>3</sup> /d) [STP5]	2.00E+03
	2.00E+03
Maximum allowable site quantity (MSafe	insert value from Environmental GES values table
based on OCs and RMMs as above (kg/day)	
[ATE15]	
Conditions and measures related to external tr	eatment of waste for disposal
External treatment and disposal of waste shou	d comply with applicable local and/or national regulations. [ETW3].
Conditions and measures related to external re	covery of waste
External recovery and recycling of waste shoul	d comply with applicable local and/or national regulations. [ERW1]
Other environmental control measures addition	al to above
None [ATE16]	
Section 3	Exposure Estimation
3.1. Health	
The Risk Management Measures/Operational	Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that
covers this product. [ATH01]	
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/Ope	rational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. [G23]
4.2. Environment	
	Retain which are work to be disclosed in the control of the property of the control of the contr
	ditions which may not be applicable to all sites: thus scaling may be necessary to define appropriate site-specific risk
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management measures [DSU1]. Further details on scaling and control technology	• • • • • • • • • • • • • • • • • • • •