EC number: Chromium trioxide CAS number: 215-607-8 1333-82-0

## **SUMMARY OF RISK MANAGEMENT MEASURES**

A succinct summary of representative risk management measures (RMM) and operational conditions (OC) is given here below. The RMMs and OCs applicable to Volta Energy Solutions Hungary Kft for the chromium trioxide uses are described in more details in Section 9.

[ES1 - IW1 - Formulation of CrO<sub>3</sub>]

ECS and WCS	Task (ERC/spERC or PROC)	Annual amount per site (tonnes/ye ar)	Technical RMMs, including: *Containment, *Ventilation (general, LEV) *customized technical installation, etc	Organisational RMMs, including: *Duration and Frequency of exposure *OSH management system *Supervision *Monitoring arrangements *Training, etc	PPE (characteristics)	Other conditions	Effectiveness of waste water and waste air treatment (for ERC)	Release factors: water, air and soil (for ERC)	Detaile d info. in CSR (section
ECS 1	Formulation (ERC 2, spERC eurometaux 2.2c.v2.1 for air releases)	100 t/year	Wet scrubber to prevent release to the atmosphere, On-site waste water treatment plant.	ISO 14001	-	-	Waste water treatment: reduction, neutralization, decantation leading (reduction of Cr(VI) to Cr(III) Air treatment: wet scrubbers with waste water treated as detailed above.	Water: 0.01 % (waste water concentration <0.1ppm) Air: 0.01% Soil: 0%	9.0.2.1 9.1.1
WCS 1	Storage and handling (PROC 1)	100 t/year	Closed system General ventilation: 8 to 12 ACH	ISO 45001, Safety training, specific medical trimestral survey, specific hygiene and safety instructions.  Exposure monitoring related to Cr(VI) OEL. Closed and locked area, restriction of access.  <1h per shift, 1 operation per week.	Nitrile gloves, Safety Googles, Protective suit.	Ambient temperature, Indoor, purity ≥ 99.5%.	-	-	9.1.2
WCS 2	Dissolution of CrO3 flakes into water (PROC 4)	100 t/year	Open system General ventilation: 35 ACH Semi-automated process Filler funnel fitted with a fixed capturing hood and enclosed in a fume cupboard like device. Operator in the far field.	ISO 45001, Safety training, specific medical trimestral survey, specific hygiene and safety instructions.  Exposure monitoring related to Cr(VI) OEL. Restricted access when operating.  12-h per shift, 365 days a year.	Nitrile gloves, Full face respirator, Disposable all-in- one suit.	Ambiant temperature, Indoor, purity ≥ 99.5%.	-	-	9.1.3
WCS 3	Manual maintenance (repair) of machinery (PROC 28)	100 t/year	Open system General ventilation: 8 to 12 ACH	ISO 45001, Safety training, specific medical trimestral survey, specific hygiene and safety instructions.  Exposure monitoring related to Cr(VI) OEL. Device of concern is abundantly washed with clean water prior to intervention.  2 hours per shift, twice a month.	Nitrile gloves, Full face respirator, Disposable all-in- one suit.	Ambiant temperature, Indoor, Conc. in mixture: extremely small	-	-	9.1.4

Abbreviations: WCS=Worker contributing scenario, ECS=Environmental Contributing Scenario,\* ERC=Environmental Release Category (or spERC if available), PROC= Process category, LEV=Local Exhaust Ventilation, PPE=Personal Protective Equipment

Key modifications compared to initial AfA are highlighted in green.