



Environment WG

Agenda

Overview and Anti-trust statement

Environmental work group objectives and procedures

Environmental restriction of seal and gasket materials

Consultative process engagement

Seals and gaskets disposal and recycling

Action plan



Overview

Anti-trust

Divisional meeting action to organise an ITCO
Environmental WG

Build on the tank containers inherent environmental superiority
by developing and promoting environmental best practice

Initially focus on seals and gaskets namely:

i) ECHA & EPA consultation processes - underway since 2020
and REACH before (European Chemical Agency / Registration, Evaluation, Authorisation & Restriction of
Chemicals / US Environmental Protection Agency)

ii) Seal and gasket safe disposal and recycling

Projects

Corporate Responsibility Code of Practice

Reduce, Re-use, Recycle

TG-08 Sustainability

Environmental webinar

Seals and gaskets - Proposed

Consultative process to restrict PFAS

PFAS - Perfluoroalkyl and Polyfluoroalkyl Substances,

4700 PFAS (up to 9000 in one report)

20 (about) common seal and gasket materials including:

PTFE (Polytetrafluoroethylene) FEP (Perfluoro elastomers) FKM (Fluorocarbon elastomer, Viton)

ECHA consultation process 2020-2025 (report re-scheduled Jan 2023)

EPA (USA) consultation process 2021-2024

Preferred outcome - seal and gasket materials designated
“essential material without adequate alternative”



Objective

Develop and implement best practice processes supporting the sustainability of the design and use of tank containers

Engage in the PFAS consultation process by lobbying and cooperating with other associations seeking to designate seal and gaskets as “essential use materials”

Organise an industry wide scheme for the safe disposal and recycling of used seals and gaskets



WG Procedures

Largely correspondence, virtual meetings as appropriate

Template comment system via email

Members manage the developing subject parts

Member or observer register

WG convener appointment



Consultation process issues

Process underway since before 2020

Many expert chemical companies and seal and gasket associations submitted papers

How can ITCO contribute?

Submit paper to the relevant stages?

Formally support existing papers/associations e.g. seal and gasket association?

Case study demonstrating the importance of sealing materials to tank containers?

Safe disposal and recycling – proactive mitigation to land-fill environmental problems

Proposed project - disposal and recycling seals and gaskets



Safe disposal
and recycling of
PTFE -
alternative to
governmental
restriction

737,000 tanks

1 x man-lid seal annually $737,000 \times 0.3\text{kg}$

Total weight 220 mt

2 x seals p/annum? = 440 mt

4 x seals p/annum? = 880 mt

Disposal and recycling issues

Who is the responsible,

Operators / tank owners support of project

Seal and gasket suppliers

Service provider facilities

Safe disposal, first step

Recycling - available facilities and technology

Material preparation - cleaning, stripping

Sorting material types

Consolidation to economic quantities

Funding

Other, other, other



Work Group Actions

- ?
- ?
- ?
- ?
- ?
- ?





Thank you

A

A

A

A

A

