

# INEOS Olefins & Polymers Europe

---



## CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS

**Issue 5**  
**July 2015**

## INTRODUCTION

It is the Ineos Olefins and Polymers policy that safety of operation must be paramount. The implementation of this policy in the distribution field poses special problems because of the extent to which we are dependent on third parties and the difficulty of supervising distribution operations in the field. We must nevertheless be quite satisfied that our distribution operations are carried out competently and safely, and in accordance with national legislation in force. This Company '*Code of Practice for the safe use of Forklifts*' has been prepared to help fulfil this aim. The Code should therefore be followed by those External companies and Departments of Ineos concerned with distribution activities in Europe.

**This document has been issued because working with forklifts is a hazardous operation.**

**It is kept brief in order to make it user friendly so that it can also be used for training purposes. It is not meant to be complete (no detailed description of all Forklift construction requirements or detailed contents of driver trainings etc..) but it highlights the Ineos specific requirements in order to allow a safe operation of Forklifts.**

**The M and R in the tables mean:**

**M:** Mandatory. This requirement must be met

**R:** Recommended. Is considered to be good practice

This document is published on the INEOS O&P Alfresco sharepoint site, accessible at <https://eudoc.ineos.com/share/page/site/ope-she-logistics/documentlibrary#filter=path%7C%2FCodes%2520of%2520Practice&page=1>

It is also available to our Logistics Services Suppliers on the extranet website: <http://www.logisticsmatters.info/>

This document is not published as a paper document. Therefore any paper documents must be treated as uncontrolled copies. Reference to the website above will always provide the most up-to-date copy. Changes to this document will of course be advised to a wide group of business and site based personnel.

## CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS

Ineos Group has introduced **10 Behavioural Safety principles** and **7 Life Saving Rules** which are the basis of the Ineos O&P safety standard:

**All Ineos employees and Service providers who work on behalf of Ineos are required to comply with the Ineos O&P safety standards.**

### **10 BS PRINCIPLES**

1. We believe all incidents and injuries can be prevented
2. Everyone's first responsibility is to ensure they work safely
3. Everyone has the duty to stop work if they feel the situation is unsafe
4. The expectations and standards are the same for everyone on the site
5. Rules and procedures must be observed and respected
6. We should look out for each others safety and unsafe situations
7. All injuries and incidents /near misses must be reported and investigated
8. Risk assessment must be carried out prior to, during and on completion of work
9. All team leaders have a special responsibility for promoting and upholding these principles
10. We must always work within the limit of our competency and training

### **LIFE SAVING RULES**

- No consumption or being under the influence of alcohol or drugs on company property.
- No smoking outside dedicated smoking areas.
- No work on live equipment/machines to commence without authorisation.
- Safety critical devices/interlocks must not be disabled or overridden without authorisation.(e.g. bypassing light curtain bagging line or tipping mechanism truck)
- Persons working at height must use proper fall protection (e.g. life line systems for bulk, safety stairs for packed etc..).
- No entry to confined space without authorisation and gas test (e.g. entry into a silo truck)
- Lifting & hoisting – no unauthorised person to enter the defined danger zone where objects can fall.

#### **Logistics specific rules**

- The Forklift-truck segregation rules must be complied with
- The traffic safety rules on our sites must be complied with

## **Contents**

INTRODUCTION.....	2
1: Forklift specifications, equipment, maintenance and repair .....	5
2: The driving area's: roadways/ loading/ unloading area's and warehouses	7
3: Training forklift drivers .....	8
4: Loading/ unloading activities .....	10
5: Fuelling / Battery charging.....	11
6: General .....	12
7: Pictures .....	13
Attachment: VISOP Segregation .....	22

# 1: Forklift specifications, equipment, maintenance and repair

## 1.1 Minimum specifications and equipment of forklifts

Item nr	Description	M	R	Comments
1.1.1	Roll over protection structure (safety cage with overhead guard)	X		
1.1.2	Doors		X	
1.1.3	Rear view mirrors (inside cabin)	X		
1.1.4	Head light (downward inclination) and tail lights	X		See picture 1 and 2
1.1.5	Horn	X		
1.1.6	Window sweepers	X		
1.1.7	Orange rotating beacon	X		See picture 1
1.1.8	Hour meter (for measuring operating hours and service intervals)	X		
1.1.9	Approved two-point seat belt	X		
1.1.10	Reversing light	X		See picture 1
1.1.11	Reversing audible alarm located outside the driver's cabin.	X		
1.1.12	Speed limiter installed. Max speed: <b>15 km/ hr.</b> <b>20 km/ hr</b> if only used outside warehouses	X		Retrofit
1.1.13	For gas powered FL's: Fire extinguisher installed. ( 6 kg - Type ABC ) <u>unless sufficient number of Fire Extinguishers are installed in the FL operating area's</u>	X		
1.1.14	For gas powered FL's: proper lashing of the gas tanks with connections in a protected position.	X		See picture 3
1.1.15	For gas powered FL's: master battery isolation switch	X		Only for NEW Forklifts (as from 2007)
1.1.16	For gas powered FL's: mobile gas bottles only allowed if properly lashed	X		
1.1.17	Solid tyres are preferred to pneumatic		X	
1.1.18	Tyres with wear indicator (solid tyres) or minimum profile requirements (pneumatic tyres)		X	
1.1.19	High seater-type or lift-cabin type Forklift allowing to drive forward with a pallet loaded (if adequate visibility)		X	See picture 4
1.1.20	Within warehouses, the visibility of forklifts can be improved with the installation of a blue spot light		X	See picture 28

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**


**1.2 Maintenance and repair**

Item nr	Description	M	R	Comments
1.2.1	Regular technical inspections by skilled personnel. The inspections must include the condition of the electric cables as Ineos O&P have suffered a few fires due to damaged positive wiring.	X		
1.2.2	Regular maintenance by skilled personnel	X		
1.2.3	Procedure in place for handling defects, including WHEN and HOW to report defects, WHEN and HOW to take the FL out of service, preventing that the FL is used until repaired (lock out - tag out) and taking back into service FL	X		See picture 5
1.2.4	Maintenance only in designated area's (not in loading area's).	X		See picture 6
1.2.5	No maintenance in fuelling or battery charging area's	X		
1.2.6	Work permit for maintenance/ repair if done outside garage	X		
1.2.7	Work which requires the engine to run, only in well ventilated area's (risk of CO poisoning).	X		Only for LPG and Diesel
1.2.8	Maintenance records to be kept	X		

## **2: The driving area's: roadways/ loading/ unloading area's and warehouses**

Item nr	Description	M	R	Comments
2.1	The roads must be in good condition, even ground, no potholes....)	X		
2.2	Floors must be clean (no oil spills, no water in the warehouse..)	X		
2.3	Anti-slip coating on the floor in warehouse near the gates (rain water !)		X	See picture 7
2.4	Enough manoeuvring room and height clearance along the routes	X		
2.5	At these locations where it is practically feasible: install protective barriers and / or clearly marked gangways to separate FL's from pedestrians.	X		See picture 8
2.6	At these locations where it is practically feasible Indicate pedestrian routes by means of lines/markings on the floor	X		See picture 9
2.7	At these loading/ unloading places where people, other than the driver and the FL operator may pass, fence off the loading area with banks/ barriers or clear signs.	X		
2.8	<b>A forklift/ truck driver segregation system must be in place. The driver stays in his cabin during loading. He is only allowed to leave his cabin when he has to remove stanchion poles or open curtains, and only when requested by the FL driver. The FL driver has to stop loading when the above is not met.</b>	X		See attachment 1
2.9	Clear indication of route/ traffic flow by means of signs, road markings	X		See picture 10
2.10	Clear indication of parking places trucks	X		
2.11	Clear indication parking places Forklifts	X		
2.12	FL's may only be parked in designated Parking zones. The engine key must be removed during parking.	X		
2.13	During night, FL's may never be parked in the warehouses unless these are properly ventilated	X		
2.14	Clear indication of loading/ unloading area's	X		
2.15	Clear instructions to drivers of route to take (by means of driving plan, signs on the road etc..)	X		
2.16	At these locations where it is practically possible, keep routes for trucks away from warehouse doors and gates. If this is not possible, clear warning signs must be in place.	X		
2.17	Avoid the need for trucks to reverse. If necessary allow reversing only with the aid of a banks man		X	
2.18	A system must be in place to keep the number of trucks on site to an absolute minimum to avoid congestion and to limit the number of drivers in the loading/ unloading area's	X		
2.19	Adequate lighting must be in place	X		
2.20	Light poles must be properly protected from collisions	X		See picture 11
2.21	Supporting beams in the warehouse which are in the driveway of the Forklifts must be properly protected from collisions and must be painted in High Visibility colours	X		See picture 12
2.22	Stacking of first row of pallets along pedestrian routes: 1 high	X		
2.23	FL drivers to sound the horn when coming at blind corners/ intersections or through gates		X	
2.24	Install rotating beacons at the warehouse gates which are		X	

## CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS

	activated automatically when a FL is approaching the gate			
2.25	Install clear pictograms indicating: emergency exits, doorways, forklift traffic, location fire alarm, location fire fighting equipment etc...	X		See pictures 14, 15
2.26	Indicate the location of Fire extinguishers and hydrants clearly by painting the nearest vertical steel beam red or by means of clear pictograms at the warehouse ceiling	X		See picture 14
2.27	Install convex mirrors at intersections with bad visibility	X		See pictures 16, 17
2.28	Always drive backwards with a loaded pallet (except for 'high seaters' or when there is enough visibility: e.g. small size load). Always be aware of a possible blind spot when driving forward (see attached lessons learned)	X		
2.29	The National Road Traffic Regulations should apply on site		X	
2.30	If repair or maintenance work has to be done in area's where forklifts circulate, It has to be reported to the supervisor and forklift drivers where and when repairs will take place.	X		 C:\Documents and Settings\divv69318\M

### 3: Training forklift drivers

Item nr	Description	M	R	Comments
3.1	Forklift drivers must attend a training course given by a qualified trainer which must comprise as a minimum the following parts: <ul style="list-style-type: none"> <li>▪ basic (skills and knowledge needed)</li> <li>▪ Specific job training (use of the FL)</li> <li>▪ Familiarisation (on the job, under supervision)</li> </ul>	X		
3.2	The training must be followed by an evaluation test	X		
3.3	Only certified FL drivers may drive a FL. This certificate may be issued internally or externally.	X		
3.4	It is <u>recommended</u> to organise yearly refresher trainings		X	
3.5	Refresher trainings or toolbox meetings must be organised after an accident, a near miss or before taking into service a new type of forklift	X		
3.6	In addition to the Forklift-specific training, Forklift drivers must receive training on the following operational activities			
3.6.1	▪ Inspection of trailers	X		
3.6.2	▪ Loading trucks from the back using mobile or fixed ramps (connecting mobile ramps, blocking wheels, inspection floor and roof structure etc...)	X		
3.6.3	▪ Loading trucks from the sides (risks of removal side structures, canvas etc...) <b>including the Forklift segregation principles</b>	X		
3.6.4	▪ Communication with the driver (what the driver is supposed to do and what not. The location of the driver etc)	X		
3.6.5	▪ Reporting near misses	X		
3.6.6	▪ Cases of near misses and incidents with forklifts	X		



**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

3.6.7	▪ Reporting defects	X		
3.6.8	▪ Maximum loading weights and load distribution	X		
3.6.9	▪ Load securing	X		
3.6.10	▪ Responsibilities operator/ driver (see Ecta/Cefic BBS guidelines)	X		
3.6.11	▪ Safe re-fuelling/ re-charging: risks of LPG / charging battery's	X		
3.6.12	▪ Emergency response for LPG incidents	X		
3.6.13	• Clear instructions to FL drivers on the conditions which must be met before loading can be started (e.g. location of the driver, condition of the trailer etc..).	X		
3.6.14	• It must be made clear to FL drivers that FL's may not be used for: Lifting people, lifting equipment like pumps, closing container doors, carrying passengers etc..... (explain why)	X		
3.6.15	• When new FL's are taken into service, a management Of Change procedure must be applied and drivers must receive training in driving with the new type of FL	X		

## 4: Loading/ unloading activities

Item nr	Description	M	R	Comments
4.1	<p>At the beginning of each day, the FL operator must do a proper check of the FL which must include the following checks:</p> <ul style="list-style-type: none"> <li>○ Hydraulic leaks</li> <li>○ Horn</li> <li>○ Battery covered</li> <li>○ Condition of electric wiring</li> <li>○ Fuel connections covered</li> <li>○ No sparks come out of exhaust system</li> <li>○ No signs of overheated engine</li> <li>○ Tires free of damage and at proper pressure</li> <li>○ Windows clean</li> <li>○ Do all controls work smoothly</li> <li>○ Condition of Forks Ok</li> <li>○ Lights OK ?</li> <li>○ Is steering responsive ?</li> <li>○ Do brakes stop smoothly and reliably ?</li> <li>○ Parking brake is effective ?</li> <li>○ Seat belts working ?</li> <li>○ Load capacity plate readable ?</li> </ul>	X		
4.2	For all loading and unloading activities, proper procedures must be in place which are practical and well understood. These procedures can be under the form of VISOP's	X		See picture 25
4.3	<p>Truck drivers must receive clear safety instructions at the entrance of the site which must contain as a minimum:</p> <ul style="list-style-type: none"> <li>• The minimum PPE required on site</li> <li>• The route to take on site</li> <li>• The requirement to use the available stairs/platforms to work at height</li> <li>• The exact locations where they are expected to be BEFORE, DURING and AFTER loading</li> <li>• What the drivers are expected to do during loading <b>including the Forklift segregation principles (see VISOP in attachment)</b></li> <li>• The requirement to secure the load after loading</li> </ul> <p>This can be achieved by means of a document, pictograms, video, VISOPs etc....</p>	X		
4.4	Before lifting a load, FL operators must always check the weight and the permitted weight of the FL in order to avoid overloading. This is of particular importance if none-routine tasks have to be done like loading/ unloading trucks with catalyst containers	X		
4.5	Seat belts <b>must</b> be worn at all times	X		
4.6	Seat belt checks must be done	X		
4.7	Minimum PPE for all people in the warehouses and loading area's: Safety shoes, HIVIS jackets, hard hat, safety glasses	X		
4.8	Minimum PPE for FL operators <u>when sitting in the FL</u> : Safety Shoes, HIVIS jacket or HIVIS stripes on working clothes, normal working clothes with long trousers, safety glasses.	X		
4.9	It is recommended FL operators to wear special safety glasses with bended side glasses in order to allow better side view than		X	

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

	standard goggles			
4.10	Side loading is preferred to back loading. If back loading is unavoidable the following must be met:			
4.10.1	<ul style="list-style-type: none"> <li>Proper inspection of the trailer floor deck and roof structure</li> </ul>	X		
4.10.2	<ul style="list-style-type: none"> <li>Proper securing of mobile ramp to the vehicle (chains at both sides)</li> </ul>	X		See picture 18
4.10.3	<ul style="list-style-type: none"> <li>Preferred: fixed ramps with wheel blocking system</li> </ul>		X	See picture 19
4.10.4	<ul style="list-style-type: none"> <li>Place wheel chocks or use vehicle / trailer restraint systems to clamp the wheels and to physically remove the drive away hazard</li> </ul>	X		
4.10.5	<ul style="list-style-type: none"> <li>Ramps must have painted edges or bull rails to prevent FL's wheels from slipping off the side</li> <li>If vehicle to be loaded is not coupled to a tractor: use fixed trailer jack (or A-frame) to prevent upending during loading.</li> </ul>	X		See picture 20
4.10.6	<ul style="list-style-type: none"> <li>Driving with the load uphill side</li> </ul>	X		
4.11	Before loading/ unloading it must be checked that the pallets are in good condition	X		
<b>4.12</b>	<b>The preparation of the trailer for loading must be done BEFORE the loading starts</b>			
4.13	Truck drivers must use the safety stairs when working at height (e.g.; removing side structure of tilt trailer). Operators must check for adherence	X		See picture 21
4.14	The canvas of curtain siders must be properly secured to avoid that it is caught by the wind during loading. The FL operator may not come near the truck unless this has been completed. A procedure for actions to take, in case of high wind speeds, must be in place.	X		
<b>4.15</b>	<b>The Securing of the load must be done by the driver AFTER completion of the loading</b>	X		<b>See Ineos O&amp;P Code of Practice for load securing</b>
4.16	Checks must be done that the load securing has been done properly			
4.17	Doors of trailers and containers may never be closed using the forks of the FL	X		
4.18	FL's with telescopic masts should not be used when loading containers/ trucks from the back		X	
4.19	Diesel powered FL's should not be used when loading containers		X	
4.20	A system must be in place to keep container doors open during loading operations			See picture 27

## **5: Fuelling / Battery charging**

Item nr	Description	M	R	Comments
5.1	LPG powered FL's :			See Pictures 22, 23 and 24
5.1.1	<ul style="list-style-type: none"> <li>Authorised access to fuelling area</li> </ul>	X		
5.1.2	<ul style="list-style-type: none"> <li>The tank, pump and lines must be protected from collisions</li> </ul>	X		

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

5.1.3	▪ Tank, pump and connections must be fenced	X		
5.1.4	▪ Adequate ventilation	X		
5.1.5	▪ Emergency stop	X		
5.1.6	▪ Fire alarm button or alternative means to raise a fire alarm	X		
5.1.7	▪ Dead man's button	X		
5.1.8	▪ Gas detection with alarm		X	
5.1.9	▪ High level alarm in tank	X		
5.1.10	▪ PV valve on tank	X		
5.1.11	▪ By-pass with PV valve on line	X		
5.1.12	▪ Fire extinguisher nearby with instructions for use	X		
5.1.13	▪ Fire fighting facilities (hydrants) in close area	X		
5.1.14	▪ Earthing, preferably with earth proving device	X		
5.1.15	▪ ATEX area	X		
5.1.16	▪ Regular hose testing	X		
5.1.17	▪ Regular maintenance and testing of tank, pump and lines	X		
5.1.18	▪ FL Engine to be switched off when fuelling	X		
5.1.19	▪ Avoid all sources of ignition	X		
5.1.20	▪ Proper warning signs	X		
5.1.21	▪ Clear procedures (E.g. VISOPs)	X		
5.1.22	▪ Max Filling 80 %	X		
5.1.23	▪ Proper PPE to be worn: normal overall, gloves, safety shoes, safety goggles or face shield	X		
5.1.24	▪ No fuelling allowed when the supplier is filling up the tank	X		
5.1.25	• Filling hose and filling pistol properly stowed	X		
5.1.26	• Filling nozzles LPG tanks must be fitted with caps	X		
5.2	Battery powered FL's :			
5.2.1	▪ keep tools and metal object away from the battery	X		
5.2.2	▪ when adding fluid: wear PPE, provide neutralising agents and /or safety shower	X		
5.2.3	▪ Loading stations: risk of explosive gasses: no smoking, proper ventilation, ATEX area	X		

## **6: General**

Item nr	Description	M	R	Comments
6.1	FL operators must undergo a regular medical check	X		
6.2	VISOP's are the preferred method of communicating procedures		X	See pictures 25, 26

## 7: Pictures

Nr	Description	
1	<b>Reversing light</b> (downward inclination), <b>tail lights</b> and <b>rotating beacon</b>	
2	<b>Head light</b> (downward inclination)	
3	<b>Proper lashing of gas tank.</b> Connections not (yet) in a protective position	







**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

4	High-seater (lift cabin)	
5	FL out of Service	
6	Separate, well ventilated FL maintenance area	

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

7	<b>Anti skid coating on floor at warehouse entrance and pallet corner protection</b>	
8	<b>Segregation pedestrians and FL's</b>	
9	<b>Marking walkway pedestrians</b>	

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

10	Road markings FI's	
11	Light pole protected from collision and painted	
12	Warehouse supporting beams protected from collision and painted	
13	Rotating beacon at warehouse exit	



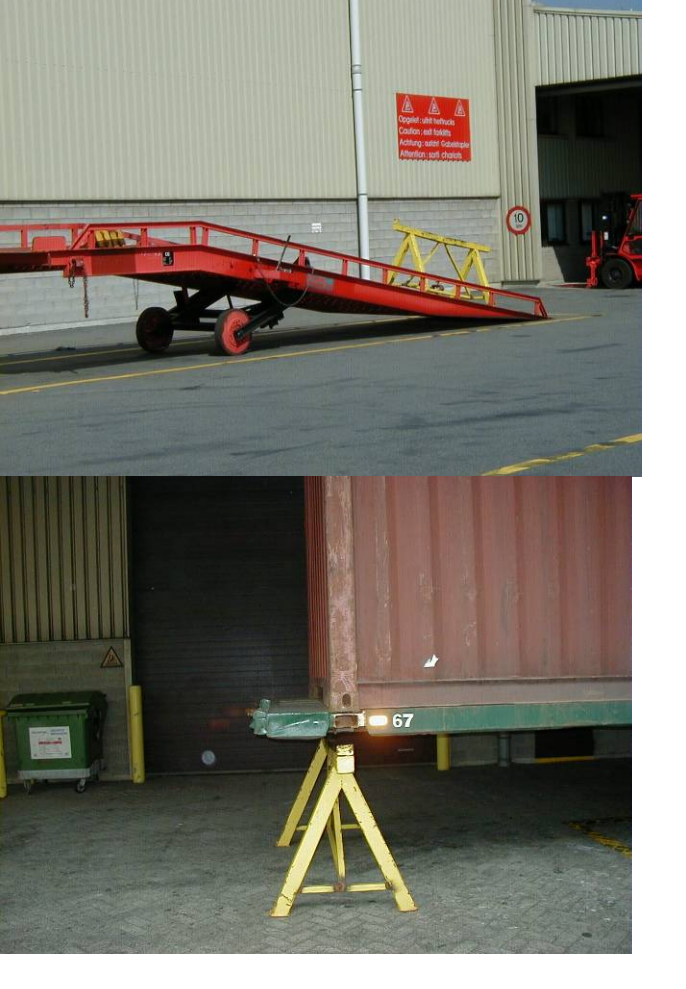

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

14	<b>Pictograms indicating location fire extinguisher, hydrant, fire alarm, exit</b>	
15	<b>Pictogram indicating FL traffic</b>	
16	<b>Convex mirror (ceiling)</b>	

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

17	Convex mirror (gate)	
18	Mobile ramp fixed with chains	
19	Fixed ramp with wheel block system	

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**






<b>20</b>	<p><b>Mobile ramp with bull rails and A-frame placed on it</b></p>          <p><b>A-Frame placed under container</b></p>	 <p>The top photograph shows a red mobile ramp with bull rails parked on a paved surface next to a building. A red warning sign is visible on the building wall. The bottom photograph shows a yellow A-frame placed under a red container, with the number '67' visible on the container's side.</p>
<b>21</b>	<p><b>Safety stairs for safe working at height</b></p>	 <p>The photograph shows a set of silver safety stairs with a handrail, positioned next to a stack of red containers. The stairs are on a paved surface, and a green fence is visible in the background.</p>



CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS

22	<b>LPG storage facilities.</b> Protected from collision, only authorised access, Fire extinguisher	
23	<b>LPG storage facilities</b> Fire alarm, emergency shut down button	
24	<b>LPG storage facilities</b> Barrier to protect LPG tank from truck collision	

**CODE OF PRACTICE FOR THE SAFE USE OF FORKLIFTS**

25	VISOP's		
26	VISOP LPG fuelling at KTN	<p>Tanken van vorklift</p>  <p>QM-PC-17 1</p> <p>Tanken van vorklift</p>  <p>Plaats het pistool terug      Berg de helm met scherm en handschoenen terug op in de kast.</p> <p>Sluit de groene deur van het tankstation terug af</p> <p>QM-PC-17 1</p>	
27	Keeping container doors open		
28	Blue spot light to improve visibility inside warehouses		

## Attachment: VISOP Segregation

INEOS  
Polyolefins

Let's keep apart  
for safety's sake!

