

VDV LUBRICANTS N.V.



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History Van De Voorde

- VAN DE VOORDE bvba ...
 - Founded 1818
 - Activities: vegetable oils, soaps, line seed oils, coal
- ... Company is growing
 - 1920: petroleum oils – heating oils
 - 1925: lubricants
 - 1930: gasoline - heavy fuels
- ... Company is acquiring
 - 1976: Belol company, exclusive European distributor for NFO
 - NFO includes glass lubricants business
- ... Company is evolving
 - 1995: NFO is sold to Fuchs Lubricants
 - 1998-2000: Van De Voorde sells all its activities ... VDV / GLASSLINE® is borned !!!



Glassline® strategy

LUBRICATE,

DON'T POLLUTE ...

YOUR ARE PRODUCING GLASS !!!



Glassline® strategy

- Be the best lubricant chemical partner for glass packaging hot-process
- Produce, sell & deliver high performing lubricants
- Be proactive towards changes within glass market
- Deliver high quality levels regarding people, products & service



Glassline® product range (30+)

- IS pneumatic oils (4)
- Shear spray lubricant (1)
- Delivery lubricants (2)
- Dry delivery lubricant (1)
- Swabbing compounds (10+)
- Spray lubricants (2)
- Neck ring lubricants (7)
- Mould release agents (2)
- Conveyor lubricants (1)

Blow/Blow
Press/Blow
NNPB





SWABPHARMA

Targetted performances

- ⦿ Efficient mould lubrication
- ⦿ Protection of both glass/mould
- ⦿ Reduction of black spots & marks
- ⦿ High finishing aspect
- ⦿ Absence of carbon residue on mould



Composition & effect of traditional swabbing compounds

- Low level of refined mineral oils + additives + standard graphite
- Swabbing = oil mist & smoke present everywhere !!!



- Oil mist dangerous (toxic) components:
Polyaromatic Hydrocarbons (PAC's)

Oil mist exposure risks

- INRS recommendations (France / EU)
 - VLEP – 8h < 5mg/m³
 - VLEP – 15min < 10mg/m³
- DL50 (MSDS – toxicity)

Label info	DL ₅₀ ORAL MG/KG	DL ₅₀ INHALATION MG/HOUR/4H
Very toxic	< 25	< 0.5
Toxic	25 – 200	0.5 – 2
Harmful	200 – 2000	2 - 20

Safety results SwabPharma

- Lab results* (closed atmosphere)

Components	INRS recommendations	Standard mineral oil	Typical Glassline® SwabPharma	Evolution
Oil mist	INRS – max 5 mg/m ³	1600 mg/m ³	3,2 mg/m ³	-98,8%
PAC - Naphtalene	INRS – 50 mg/m ³	360 µg/m ³	123 µg/m ³	-66%
PAC - Benzene	INRS – 3,25 mg/m ³	55 mg/m ³	0,59 mg/m ³	-99%
PAC - Formaldehyde	MAC – 300µg/m ³	1400 µg/m ³	87 µg/m ³	-94%

* Souce - Arc International

- DL50 estimed at 20.000 mg/kg = 10x lower than “harmful” level



SwabPharma international standards

- ◉ 75 à 85% of actual formulation is in accordance to food & pharma standards
 - FDA / use under the following sections of 21 CFR
 - Food contact following Regulation EC 1282/2011
 - GMP approach following Regulation 1935/2004
- ✓ In 2017, additional quality standards will be initiated



Glassline® project “SwabPharma”

1. Lubricate blank & finishing moulds

But also ...

1. Lubricate only where necessary
2. Leave glass clean
3. Minimise/eliminate moulds maintenance due to corrosion & impurities + carbon deposits
4. Reduce lubricant consumption
5. Increase pack rate
6. Make safe air environment
7. Make safe operators working environment
8. ...

Don't forget, each plant/line is different !!!



Test case Glassline® BML334 vs. SC170

Start with new mould material on L1: 20 section Heye machine, double gob, NNPB process

	Glassline® BML334	SC 170
He Pack %	96,97	96,28
PTT %	91,88	89,31
Blank Changes/day	11,9	17,8
Section Jams/day	1	2

Conclusion - use of Glassline® BML 334:

- Increase of PTT +2,57% = substantial profit or 22 200 bottles/day
 - Cleaning cost 5,5 moulds/day higher than cost of lubricant
 - Lubricant consumption, 20 sections: approx. 4 kg/day





HOW CLEAN CAN YOU GO ?

Test case Glassline® BML334 vs. SC170

Pollution of blank moulds / baffle (runtime 75 Hr.)



Massive difference in pollution between BML 334 and SC170. Much pollution with SC170.

Soft carbon deposit with BML 334. Easy to remove.

Hard carbon deposit with SC 170. Difficult to remove.

Test case Glassline® BML334 vs. SC170

Pollution of blank moulds / baffle (runtime 75 Hr.)



Massive difference in pollution between BML 334 and SC170. Much pollution with SC170.

Soft carbon deposit with BML 334. Easy to remove.

Hard carbon deposit with SC 170. Difficult to remove.

Test case Glassline® BML334 vs. SC170

Pollution of blank moulds / baffle (runtime 75 Hr.)



Massive difference in pollution between BML 334 and SC170. Much pollution with SC170.

Soft carbon deposit with BML 334. Easy to remove.

Hard carbon deposit with SC 170. Difficult to remove.

Test case BML334 vs. SC170

Pollution of blank moulds / baffle (runtime 75 Hr.)



Massive difference in pollution between BML 334 and SC170. Much pollution with SC170.

Soft carbon deposit with BML 334. Easy to remove.

Hard carbon deposit with SC 170. Difficult to remove.

Conclusion

Glassline® allows to use hot-end process equipments safely & without polluting glass ...

... it's all about the people & machines of today & tomorrow

