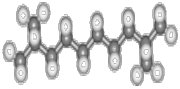


Easy Steps to identify chemicals that are regulated/ licensed by SCDF



What chemicals are regulated/ licensed by SCDF?



1. Petroleum (Flash Point based)



- **All Class O Petroleum:** liquefied petroleum gas
- **All Class I Petroleum:** any petroleum having a flashpoint below 23°C
- **All Class II Petroleum:** any petroleum having a flashpoint exceeding 23°C but less than 60°C
- **Class III Petroleum:** any petroleum having a flashpoint exceeding 60°C but less than 93°C - **Diesel** is the only Class III petroleum that is regulated

What chemicals are regulated/ licensed by SCDF?

2. Flammable Materials (Scheduled List)

- Any substance specified in the Schedule List
- HS codes and product codes in the Scheduled List are for use in permit declaration of import

3. Mixtures of Petroleum & Flammable Materials (P&FM)

- Any mixture that contains component of petroleum and / or flammable materials (Scheduled List) and has a flash point less than 60°C

4. Petroleum & Flammable Materials (P&FM) that are above the exemption quantities are required for import, transport and storage licences.

Exemption Quantity For Import & Transport

Exemption Quantity for Import and Transport, where the P&FM below the exemption quantity, no import and transport licences are required.

Class of Petroleum	Quantity
(a) Class O (LPG)	Total of 130 kg Gross wt in not more than 2 cylinders
(b) Class I	20 L
(c) Class II	200 L
(d) Class III	200 L
FM	Quantity
Solid FM	10 Kg
Liquid FM	20 L
Gaseous FM	Total of 130 kg Gross wt in not more than 2 cylinders

Transportation of mixed classes of P&FM will be subjected to licensing control regardless of quantity

Exemption Quantity For Storage

First Schedule of Exemption Order

- Quantity of Class O petroleum (LPG) not requiring a storage licence

Type of Usage	Quantity
(i) For private use in a private dwelling house	Not more than 30 kg in not more than 2 cylinders
(ii) For use in an eating place	Not more than 30 kg per stall where the maximum quantity to be stored in an eating place does not exceed 200 kg
(iii) For use in a restaurant	Not more than 200 kg
(iv) For use in a factory	Not more than 300 kg per factory

Exemption Quantity For Storage

First Schedule of Exemption Order

- Quantity of Class I, II & III of petroleum (kept in air-tight containers) not requiring a Storage licence

Type of Usage	Class I Petroleum	Class II Petroleum	Class III Petroleum
(i) For private use in a private dwelling house or for use in any business other than in a factory	Not more than 20 L	Not more than 200 L	Not more than 1,500 L
(ii) For use in a factory	Not more than 400 L	Not more than 1,000 L	Not more than 1,500 L

Exemption Quantity For Storage

Second Schedule of Exemption Order

Flammable Material	General Manufacturing Purpose	Med/Lab Purpose
Acetal	20 L	20 L
Acetone	20 L	20 L
Acetyl chloride	20 L	20 L
Acetylene	10 kg	10 kg
Aldehydes	20 L	20 L
Allyl acetate	20 L	20 L
Allyl bromide	20 L	20 L
Allyl chloride	20 L	20 L
Allyl formate	20 L	20 L
Allyl iodide	20 L	20 L

Exemption Quantity For Storage

Para 5 Of Exemption Order

- Exemption Quantity for mixed storage of Petroleum and FM

Flammable Materials	Quantity (Aggregate)
Flammable Solid	20 kg
Flammable Liquid	40 litres
Flammable Gas	10 kg

Important Note: Licence is not required where substances are mixed states and their aggregate weight does not exceed 20 kg

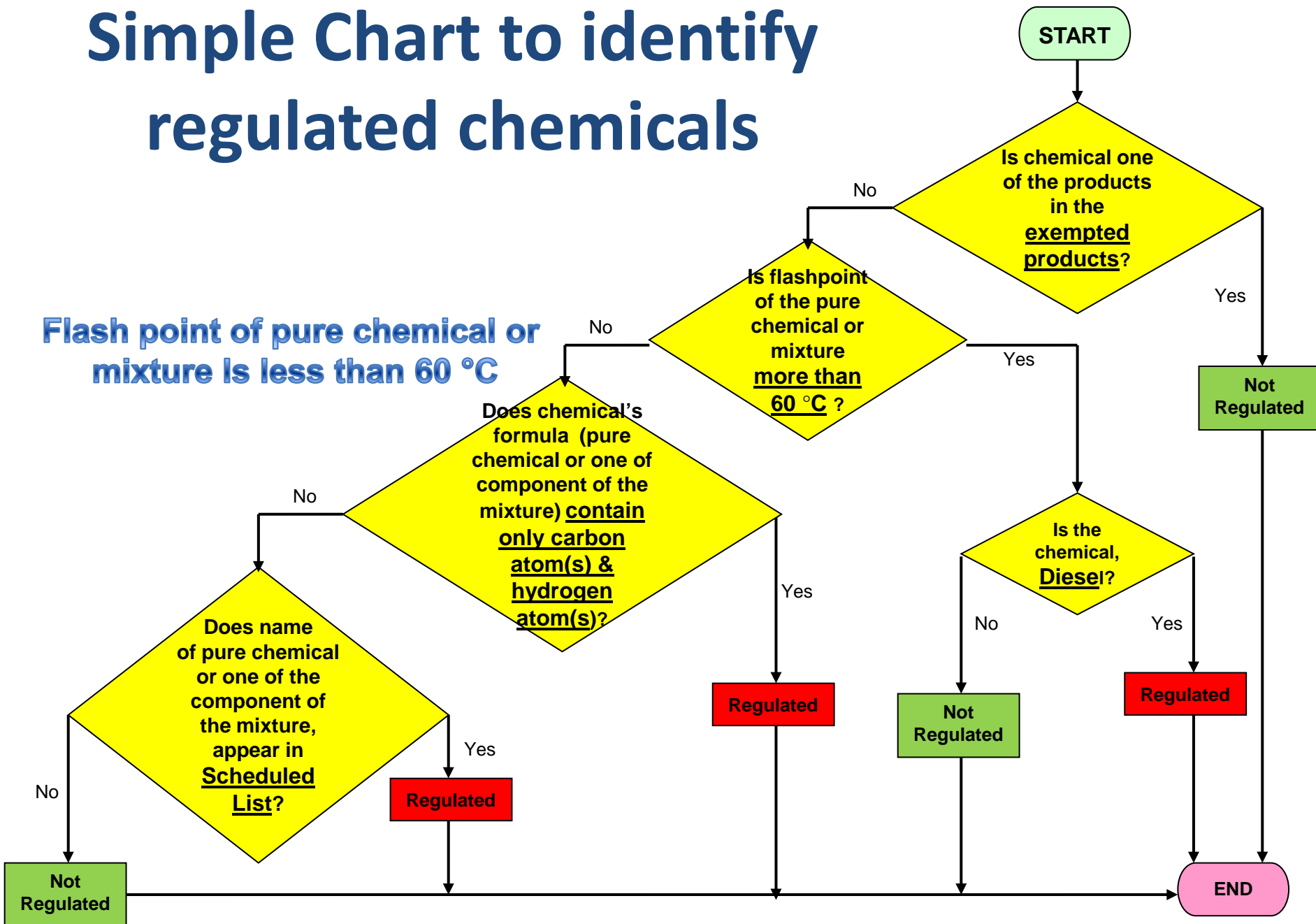
What Petroleum & Flammable Materials products are exempted from SCDF's licences?

- Adhesives
- Cigarette lighters and portable gas lighters
- Cosmetic and beauty products including hair styling products
- Food and beverages including beer, wine and liquor
- Insecticides and pesticides
- Lacquer solvents
- Lubricants
- Medicine
- Paints
- Pharmaceutical products
- Varnishes

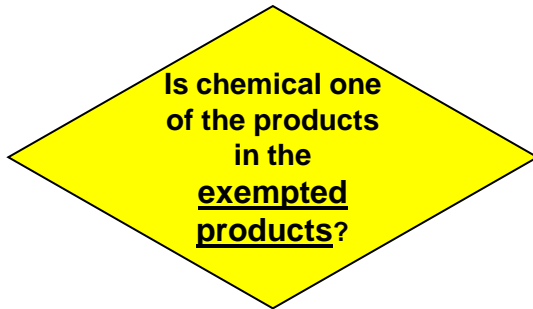
**THESE PRODUCTS DO NOT NEED
P&FM LICENCES FROM SCDF**

Simple Chart to identify regulated chemicals

Flash point of pure chemical or mixture is less than 60 °C



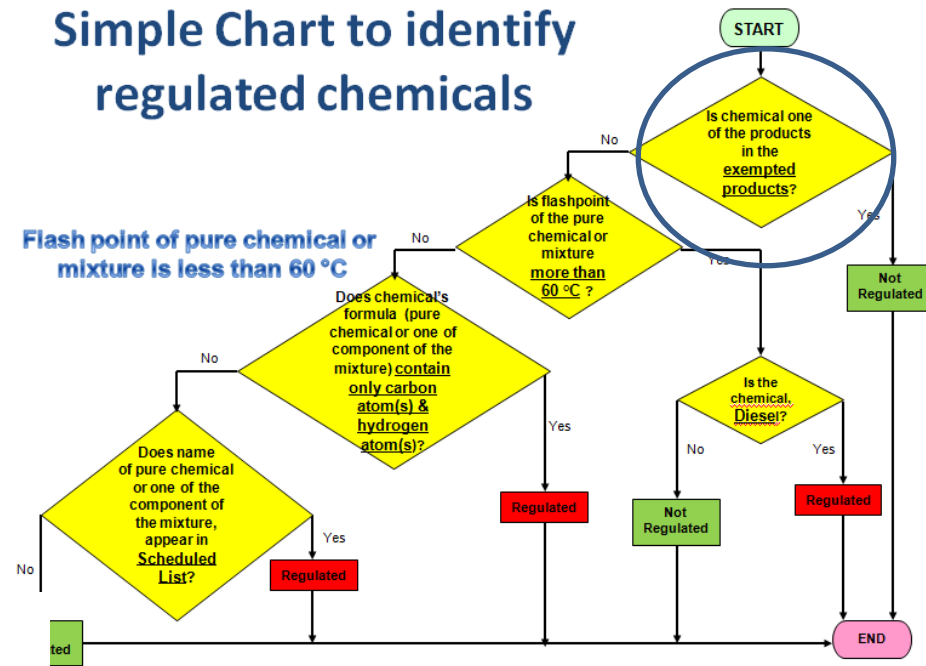
Step 1



Exempted Products

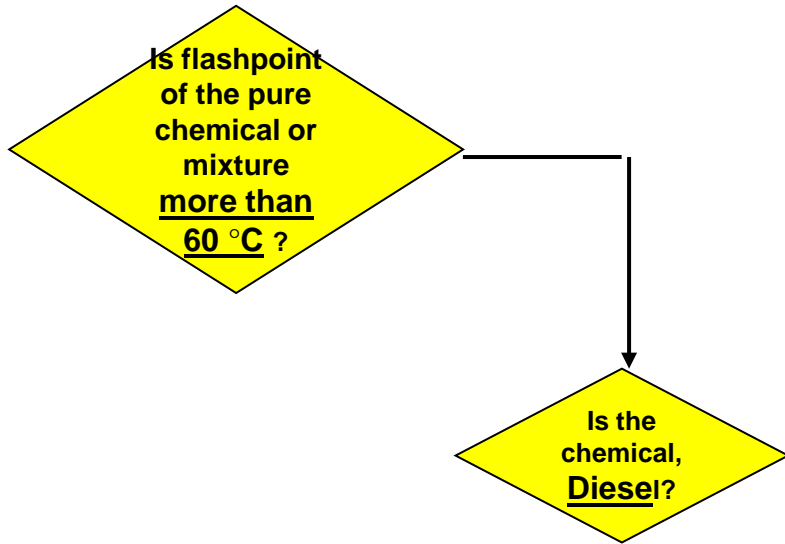
- ◆ Adhesives
- ◆ Cigarette lighters and portable gas lighters
- ◆ Cosmetic and beauty products including hair styling products
- ◆ Food and beverages including beer, wine and liquor
- ◆ Insecticides and pesticides
- ◆ Lacquer solvents
- ◆ Lubricants
- ◆ Medicine
- ◆ Paints
- ◆ Pharmaceutical products
- ◆ Varnishes

Simple Chart to identify regulated chemicals

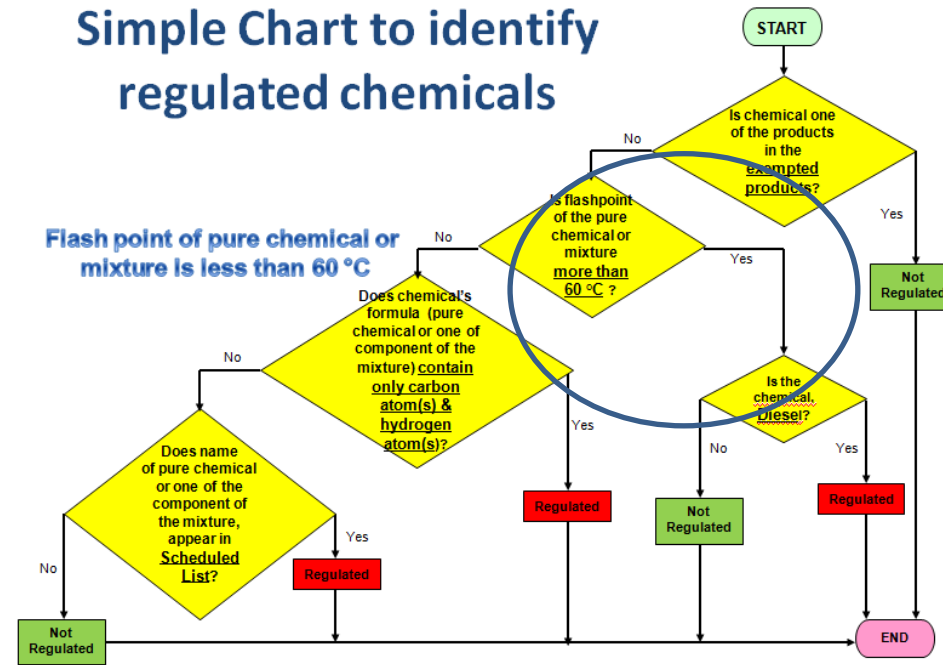


- ❖ **What is the use/ purpose of this chemical?**
 - No P&FM licence is required if it is a finished product that belongs to one of the exempted products.

Step 2



Simple Chart to identify regulated chemicals



9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid
COLOUR	Colourless
ODOUR	Fruity.
SOLUBILITY	Insoluble in water Soluble in Organic solvents
MOL. WEIGHT	132.23
RELATIVE DENSITY	0.944 - 0.952 20
VAPOUR PRESSURE	5 mmHg 20
REFRACTIVE INDEX	1.457 - 1.463
	BOILING POINT (°C) 149 - 151 atm
	VAPOUR DENSITY (air=1) 4.6
	FLASH POINT (°C) 33 CC (Closed cup).

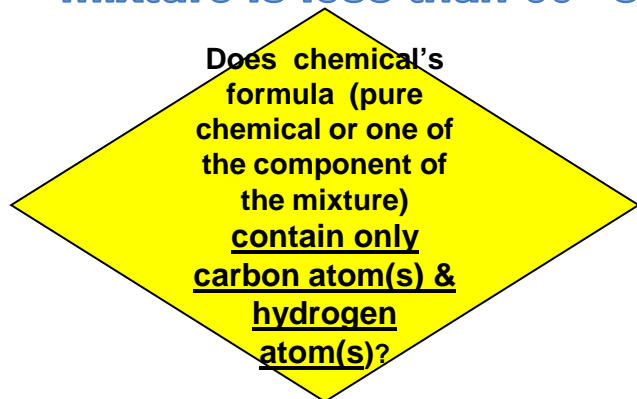
❖ What is the flash point of the chemical?

➤ Look under the Safety Data Sheet's (SDS) Section titled "Physical & Chemical Properties".

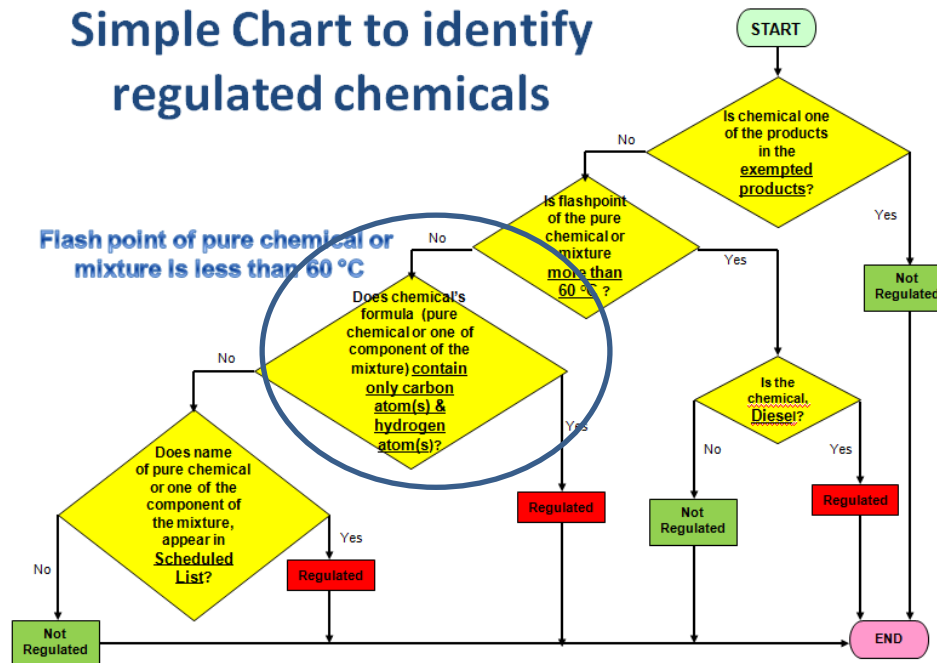
➤ **Diesel** is the only Class III petroleum (flash point above 60°C) that is regulated by SCDF.

Step 3

Flash point of pure chemical or mixture is less than 60 °C



Simple Chart to identify regulated chemicals



Flash point of pure chemical or mixture is less than 60 °C

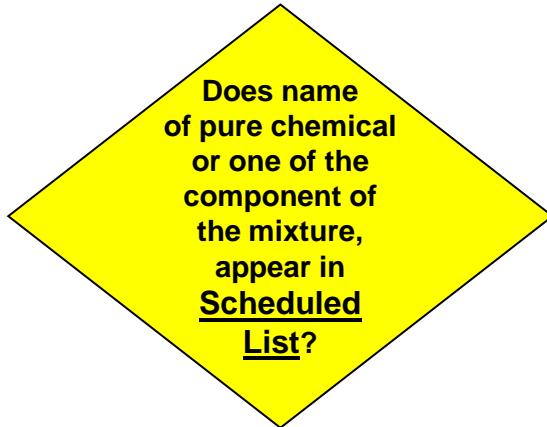
❖ What is the chemical formula?

- Look under the SDS's Section titled "Composition/ Information on Ingredients".
- If pure chemical or one of the component of mixture contains only C & H₂ atoms, it is licensable. Check on list of licensable Petroleum.

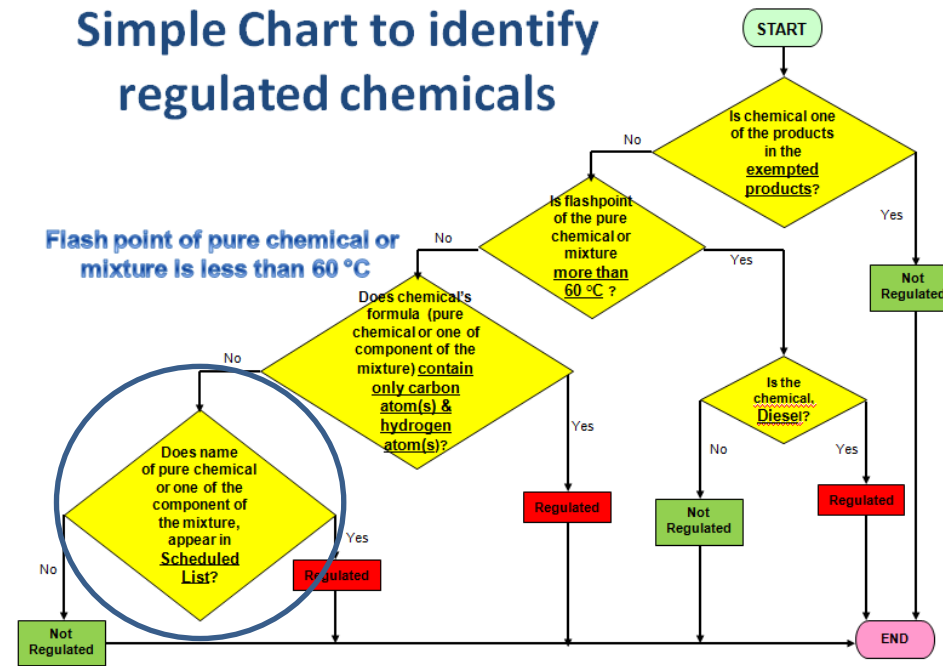
3. Composition/Information On Ingredients	
Chemical identification	: Butene, C ₄ H ₈
Common name(s) / synonym(s)	: Butylene, Alpha Butylene, Ethylethylene
CAS number / EC number	: 106-98-9/25167-67-3

Step 4

Flash point of pure chemical or mixture is less than 60 °C



Simple Chart to identify regulated chemicals



❖ What is the chemical name?

➤ Look under the SDS's Section titled "Composition/ Information on Ingredients".

➤ The product is regulated if it contains components of licensable Petroleum and / or Flammable Materials.

➤ Declare the mixture by using the highest component % of Petroleum and / or Flammable Materials.

➤ Check for chemicals with synonym.

Section 3. Hazardous Ingredients

Hazardous Ingredient	% wt.	CAS Number	LD50	LC50	TDG PIN
Ethanol	81.7	64-17-5	7,060 mg/kg oral rat 3,450 mg/kg oral mouse	20,000 ppm/10 hr. inhalation rat 39 gm/m ³ /4hr inhalation mouse	
Isopropanol	4.4	67-63-0	5,045 mg/kg oral rat 3,600 mg/kg oral mouse	72,600 mg/m ³ inhalation rat 53,000 mg/m ³ inhalation mouse	
Methanol	4.0	67-56-1	5,600 mg/kg oral rat 7,300 mg/kg oral mouse	64,000 ppm/4 hr. inhalation rat 81,000 mg/m ³ /14hr rabbit	
Orange G powder	NA	1936-15-8	NA	NA	
Phosphotungstic acid	NA	12067-99-1	3,300 mg/kg oral rat	NA	

Important Notes for Import Licence



Further assistance, call SCDF

Mr Nasir @ 68481468

Mr Zali @ 68481465

Mr Mahaintharan @ 68481429

Import Control

- Any person who wishes to import any scheduled P & FM above exemption quantity will require a valid import licence
- Criteria for application of import licence:
 - UEN
 - Storage Licence(s)
- Duration of licence is 1 year
- Import licence fee is \$70 per year
- Application of Import licence is through SCDF website (www.scdf.gov.sg). A SingPass is required

Import Control

- Container, tank, freight container or road tank used for importation of P&FM shall be designed, constructed, maintained and labeled in accordance with an accepted code of practice specified by Commissioner
- Collection of imported petroleum and flammable materials
- ◆ **Importer, or an authorized agent shall take delivery at :**
 - wharf if imported by water
 - air cargo terminal by air
 - Tuas Checkpoint (or such other place specified by Commissioner if Tuas Checkpoint is closed) by road
 - No P&FM shall be imported by rail

Important Notes for Transport Licence



Further assistance, call SCDF

Mr Nasir @ 68481468

Mr Zali @ 68481465

Mr Mahaintharan @ 68481429

Transport Control

- Any person who wishes to transport any scheduled P&FM above the exemption quantities will require a valid transportation licence
- One transportation licence is issued per vehicle
- Criteria for application of transportation licence:
 - Vehicle : Valid LTA roadworthiness test certificate & Fire Safety inspection test certificate
 - Tank (reports endorsed by P.E.) :
 - Manufacturer's specifications and test reports
 - Hydrostatic or equivalent test report (every 5th yr)
 - Radiographic or equivalent testreport (every 10th yr)
 - Driver : Valid HazMat Transportation Driver Permit (HTDP)
 - Transportation Emergency Response Plan
 - QRA (if required)
 - Consent letter from vehicle owner (if vehicle does not belong to applicant)

Important Notes for Storage Licence



Further assistance, call SCDF

Mr Faizal @ 68481495

Mr Muhathir @ 68481442

Storage Control

- Any person who wishes to store any scheduled P&FM above the exemption quantities will require a valid storage licence

- Criteria for application of storage licence:
 - Approved Building Plan (include piping system, routing, fitting, pump eqpt)

 - Temporary Fire Permit or Fire Safety Certificate

 - Storage Tank certifications (endorsed by P.E.) including:
 - manufacturer's specifications and test reports
 - hydrostatic or equivalent test report (every 5th year)
 - radiographic or equivalent test report (every 10th year)
 - pressure or equivalent test report for piping (every 5th year)

 - Emergency Response Plan

 - Checks of fire safety requirements by P.E. or Competent Person

Storage Control

- One storage licence is issued per premises (valid for 1 to 3 yrs)
- Licence is not transferable except with consent in writing of the Commissioner
- Application of storage licence is through Online Business Licensing Scheme (OBLS). A SingPass is required.

Important Notes

- For premises that **do not store** any P&FM above the exemption quantity, **no P&FM storage licences are required**.
- However, the following are still required:
 - Approved building plan of premise
 - Fire Safety Certificate



Important Notes for Pipeline Licence



Further assistance, call SCDF

Mr Kelvin @ 68481484

Ms Claire @ 68481735

Pipeline Control

- Pipeline licence issued is valid for 1 yr
- Licence is not transferable except with consent in writing of the Commissioner
- For application of pipeline licence, please refer to SCDF website.
- http://www.scdf.gov.sg/content/scdf_internet/en/building-professionals/fire-safety-licensing-and-enforcement.html



Thank You

