

REGISTRATION REPORT

Part A

Risk Management

Product code: Ethylene Gas

Product name: AZETHYL PHYTO (ETHYLEN GAS)

Chemical active substance:

Ethylene, 3.905% w/w

Interzonal

Interzonal Rapporteur Member State: France

NATIONAL ASSESSMENT FRANCE

(Label extension)

Applicant: Air Liquide France Industrie

Date: 07/04/2021

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PART A

RISK MANAGEMENT

1 Details of the application

The company AIR LIQUIDE FRANCE INDUSTRIE has requested a label extension of marketing authorisation in France for the product AZETHYL PHYTO (product code: Ethylene Gas ; authorisation n° 2150003), containing 39.05 g/kg (3.905 %) ethylene¹, as a plant growth regulator for professional uses.

Appendix 1 of this document provides a copy of the product authorisation.

Appendix 2 of this document contains a copy of the product label (draft as proposed by the applicant).

1.1 Application background

The present registration report concerns the evaluation of AIR LIQUIDE FRANCE INDUSTRIE's application submitted on 06/09/2019 to market AZETHYL PHYTO (Ethylene Gas) in France (product uses described under point 2.3). France acted as interzonal Rapporteur Member State (izRMS) for this request and assessed the application submitted for the label extension of this product in France and in other Member States (MSs) of the European Union.

The present application (2019-5037) was evaluated in France by the French Agency for Food, Environmental and Occupational Health & Safety (Anses), according to the Regulation (EC) no 1107/2009², the implementing regulations, and French regulations. This application was assessed in the context of the zonal procedure for all MSs of the European Union, taking into account the worst-case uses ("risk envelope approach")³. When risk mitigation measures were necessary, they are adapted to the situation in France.

The data taken into account are those deemed to be valid either at European level (Review Report and EFSA conclusion) or at zonal/national level. The assessment of AZETHYL PHYTO (Ethylene Gas) have been made using endpoints agreed in the EU peer review of ethylene. It also includes assessment of data and information related to AZETHYL PHYTO (Ethylene Gas) where those data have not been considered in the EU peer review process.

This part A of the RR presents a summary of essential scientific points upon which recommendations are based and is not intended to show the assessment in detail. The risk assessment conclusions provided in this document are based on the information, data and assessments provided in the Registration Report, Part B Sections 1-10 and Part C, and where appropriate the addendum for France.

The conclusions on the acceptability of risk are based on the criteria provided in Regulation (EU) No 546/2011⁴, and are expressed as "acceptable" or "not acceptable" in accordance with those criteria.

This document also describes the specific conditions of use and labelling required for France for the

¹ COMMISSION IMPLEMENTING REGULATION (EU) No 187/2013 of 5 March 2013 amending Implementing regulation (EU) No 540/2011 as regards the conditions of approval of the active substance ethylene.

² REGULATION (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC.

³ SANCO document "risk envelope approach", European Commission (14 March 2011). [Guidance document on the preparation and submission of dossiers for plant protection products according to the "risk envelope approach"; SANCO/11244/2011 rev. 5](#)

⁴ COMMISSION REGULATION (EU) No 546/2011 of 10 June 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards uniform principles for evaluation and authorisation of plant protection products

registration of AZETHYL PHYTO (Ethylene Gas).

1.2 Letters of Access

Not necessary: active substance data are out of protection.

1.3 Justification for submission of tests and studies

According to the applicant: *“Testing is conducted according to the data requirements for the authorisation of plant protection products and is conducted in compliance with national and international animal welfare regulations”*.

1.4 Data protection claims

Where protection for data is being claimed for information supporting registration of AZETHYL PHYTO (Ethylene Gas), it is indicated in the reference lists in Appendix 1 of the Registration Report, Part B Sections 1-7.

2 Details of the authorisation decision

2.1 Product identity

Product code	Ethylene Gas
Product name in MS	AZETHYL PHYTO
Authorisation number	2150003
Kind of use	Professional use.
Low risk product (article 47)	No.
Function	Plant growth regulator.
Applicant	Air Liquide France Industrie.
Active substance(s) (incl. content)	Ethylene, 39.05 g/kg
Formulation type	Gas (GA).
Packaging	Packaging not changed.
Coformulants of concern for national authorisations	-
Restrictions related to identity	PPP should contain less than 0.039 % w/w ethylene oxide.
Mandatory tank mixtures	None.
Recommended tank mixtures	None.

2.2 Conclusion

The evaluation of the application for AZETHYL PHYTO (Ethylene Gas) resulted in the decision **to grant**

the authorisation.

2.3 Substances of concern for national monitoring

Refer to 5.1.1.

2.4 Classification and labelling

2.4.1 Classification and labelling under Regulation (EC) No 1272/2008

Classification not changed.

2.4.2 Standard phrases under Regulation (EU) No 547/2011

SP 1	Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.
	For other restrictions refer to 2.5.

2.4.3 Other phrases (according to Article 65 (3) of the Regulation (EU) No 1107/2009)

None.

2.5 Risk management

According to the French law and procedures, specific conditions of use are set out in the Decision letter. The French Order of 4 May 2017⁵ provides that:

- unless otherwise stated in the product authorisation, the pre harvest interval (PHI) is at least 3 days;
- unless otherwise stated in the product authorisation, the minimum buffer zone alongside a water body is 5 metres for products applied through spraying or dusting;
- unless otherwise stated in the product authorisation, the minimum re-entry period is 6 hours for field uses and 8 hours for indoor uses.

Drift reduction measures such as low-drift nozzles are not considered within the decision-making process in France. However, non-spraying buffer zones may be reduced under some circumstances as explained in appendix 3 of the above-mentioned French Order.

Finally, the French Order of 26 March 2014⁶ provides that:

- an authorisation granted for a “reference” crop applies also for “related” crops, unless formally stated in the Decision

⁵ Arrêté du 4 mai 2017 relatif à la mise sur le marché et à l'utilisation des produits phytopharmaceutiques et de leurs adjuvants visés à l'article L. 253-1 du code rural et de la pêche maritime amended by the arrêté du 27 décembre 2019 relatif aux mesures de protection des personnes lors de l'utilisation de produits phytopharmaceutiques <https://www.legifrance.gouv.fr/eli/arrete/2017/5/4/AGRG1632554A/jo/texte> ; <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000039686039&categorieLien=id>

⁶ <http://www.legifrance.gouv.fr/eli/arrete/2014/3/26/AGRG1407093A/jo>

- the “reference” and “related” crops are defined in Appendix 1 of that French Order.

Thus, at French national level, possible extrapolation of submitted data and the corresponding assessment from “reference” crops to “related” ones are undertaken even if not clearly requested by the applicant in their dRR, and a conclusion is also reached on the acceptability of the intended uses on those “related” crops. The aim of this Order, mainly based on the EU document on residue data extrapolation⁷ is to supply “minor” crops with registered plant protection products.

Therefore the GAP table (Section 2.3) and Decision may include uses on crops not originally requested by the applicant.

The Decision, as reproduced in Appendix 1, takes also into account national provisions, including national mitigation measures.

2.5.1 Restrictions linked to the PPP

The authorisation of the PPP is linked to the following conditions:

The applicant is required to comply with the current applicable standard for PPEs⁸.

Operator protection:	
-	Refer to the Decision in Appendix 1 for the details.
Worker protection:	
-	Refer to the Decision in Appendix 1 for the details.
Integrated pest management (IPM)/sustainable use:	
-	
Environmental protection:	
-	
Other specific restrictions:	
Re-entry period	After ventilation allowing a complete renewal of the air volume of the closed shelter.
Storage	The conditions of storage specified in the previous evaluations are not changed.
Risk mitigation measure	-
Agricultural recommendations	-

The other conditions of use specified in the previous evaluations are not changed.

2.5.2 Specific restrictions linked to the intended uses

Some of the authorised uses are linked to the following conditions in addition to those listed under point

⁷ SANCO document “guidance document:- Guidelines on comparability, extrapolation, group tolerances and data requirements for setting MRLs”: SANCO/ 7525/VI/95 - rev.9

⁸ PPE personal protective equipment

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izRMS (FR) version

2.5.1 (mandatory labelling):

None.

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izRMS (FR) version

2.6 Intended uses (only NATIONAL GAP)

Please note: The GAP Table below reports the intended uses proposed by the applicant, and possible extrapolation according to French Order of 26 March 2014 (highlighted in green), evaluated and concluded as safe uses by France as izRMS. Those uses are then granted in France.

GAP rev. 1, date: 2021/04/07

PPP (product name/code): AZETHYL PHYTO (Ethylene Gas)
Active substance 1: ethylene
Applicant: Air Liquide France Industrie
Zone(s): Interzonal ^(d)
Verified by MS: Yes
Field of use: Plant growth regulator

Formulation type: Gas [GA] ^(a, b)
Conc. of a.s. 1: 39.05 g/kg ^(c)
Professional use: ☒
Non-professional use: ☐

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Use- No. ^(e)	Member state(s)	Crop and/ or situation (crop destination/purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks: e.g. g safener/synergist per ha ^(f)
					Method/Kind	Timing/Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season	g a.s./ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min/max x		
Interzonal uses (use as seed treatment, in greenhouses (or other closed places of plant production), as post-harvest treatment or for treatment of empty storage rooms)													
1	FR	Tomatoes	G/I	Ripening of fruit	Gas injection to specific greenhouses or “closed pro- tected areas”	BBCH 81-89	a) 42 b) 42	One application per night for a maximum of six weeks	a) 25.6 ppm/night [25.6 mL/m³] b) 1075.2 ppm	a) 1 ppm b) 42 ppm	n.a.	n.a	Acceptable Treatment for six weeks at night Dose rate: 0.2-1 ppm Permanent greenhouse only.

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izRMS (FR) version

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Use- No. ^(e)	Member state(s)	Crop and/ or situation (crop destination/purpose of crop)	F, Fn, Fpn G, Gn, Gpn or I	Pests or Group of pests controlled (additionally: developmental stages of the pest or pest group)	Application				Application rate			PHI (days)	Remarks: e.g. g safener/synergist per ha ^(f)
					Method/Kind	Timing/Growth stage of crop & season	Max. number a) per use b) per crop/ season	Min. interval between applications (days)	kg or L product/ha a) max. rate per appl. b) max. total rate per crop/season	g a.s./ha a) max. rate per appl. b) max. total rate per crop/season	Water L/ha min/ma x		
2	FR	Tomatoes	G	Ripening of fruit	Gas injection to specific green- houses/closed protected areas	BBCH 81-89	a) 14 b) 14	One application per night for a maximum of two weeks	a) 256 ppm/night [256 mL/m ³] b) 3585 ppm	a) 10 ppm b) 140 ppm	n.a	n.a.	Acceptable Treatment for two weeks at night Dose rate: 10 ppm Permanent greenhouses only.

* As some standards may have undergone changes, it is the responsibility of the applicant to update the references.

Remarks table heading:	(a)	e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR).	(d)	Select relevant.
	(b)	Catalogue of pesticide formulation types and international coding system CropLife International Technical Monograph n°2, 6th Edition Revised May 2008.	(e)	Use number(s) in accordance with the list of all intended GAPs in Part B, Section 0 should be given in column 1.
	(c)	g/kg or g/l.	(f)	No authorisation possible for uses where the line is highlighted in grey, Use should be crossed out when the notifier no longer supports this use.
Remarks columns:	1	Numeration necessary to allow references.	7	Growth stage at first and last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application.
	2	Use official codes/nomenclatures of EU Member States.	8	The maximum number of application possible under practical conditions of use must be provided.
	3	For crops, the EU and Codex classifications (both) should be used; when relevant, the use situation should be described (e.g. fumigation of a structure).	9	Minimum interval (in days) between applications of the same product.
	4	F: professional field use, Fn: non-professional field use, Fpn: professional and non-professional field use, G: professional greenhouse use, Gn: non-professional greenhouse use, Gpn: professional and non-professional greenhouse use, I: indoor application.	10	For specific uses other specifications might be possible, e.g.: g/m ³ in case of fumigation of empty rooms. See also EPPO-Guideline PP 1/239 Dose expression for plant protection products.
	5	Scientific names and EPPO-Codes of target pests/diseases/ weeds or, when relevant, the common names of the pest groups (e.g. biting and sucking insects, soil born insects, foliar fungi, weeds) and the developmental stages of the pests and pest groups at the moment of application must be named.	11	The dimension (g, kg) must be clearly specified. (Maximum) dose of a.s. per treatment (usually g, kg or L product/ha).
	6	Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench	12	If water volume range depends on application equipments (e.g. ULVA or LVA) it should be mentioned under "application: method/kind".
		Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plants - type of equipment used must be indicated.	13	PHI - minimum pre-harvest interval.
			14	Remarks may include: Extent of use/economic importance/restrictions.

3 Background of authorisation decision and risk management

3.1 Physical and chemical properties (Part B, Section 2)

Physical and chemical properties of the product were considered acceptable at the time of the previous evaluation. No new data were provided for the present extension of use.

3.2 Efficacy (Part B, Section 3)

Considering the data submitted:

The efficacy level of AZETHYL PHYTO (Ethylene Gas) is considered satisfactory for the requested use.

The risks of negative impact on quality are considered negligible.

3.3 Methods of analysis (Part B, Section 5)

3.3.1 Analytical method for the formulation

An analytical method for the determination of the active substance in the formulation was provided in the previous dossier and was considered acceptable. No new data were provided for the present extension of use.

3.3.2 Analytical methods for residues

Analytical methods for the determination of the active substance residues were provided in the previous dossier and were considered acceptable. No new data were provided for the present extension of use.

3.4 Mammalian toxicology (Part B, Section 6)

3.4.1 Acute toxicity

AZETHYL PHYTO (Ethylene Gas), containing 39.05 g/kg ethylene, has a low acute oral, inhalational and dermal toxicity, is not irritating to the rabbit skin or eye and is not a skin sensitiser.

3.4.2 Operator exposure

The operator exposure was already assessed for similar uses at a higher application rate (260 ppm). It may be concluded that the risk for the operator using ethylene gas is acceptable with a working coverall (90 % protection factor), safety shoes, goggles or face shield and handling gloves during the loading/reloading of the bottles and with a respiratory equipment certified NF EN137 during application (in case of accident or malfunction).

3.4.3 Worker exposure

The worker exposure has been previously assessed for the use of AZETHYL PHYTO (Ethylene Gas). It may be concluded that there is no unacceptable risk anticipated for the worker wearing suitable respiratory protection equipment certified NF EN137, when entering the ripening chambers or greenhouse treated with AZETHYL PHYTO (Ethylene Gas) to perform inspection, work, maintenance or storing food.

This is supported by two studies⁹ with analytical data provided by the applicant, where the results demonstrated that ethylene concentrations in the warehouse chamber were below the limit value for professional exposure proposed by the American Conference of Governmental Industrial Hygienists (ACGIH): 200 ppm for eight hours' exposure per day.

3.4.4 Bystander and resident exposure

Not applicable; AZETHYL PHYTO (Ethylene Gas) is solely used in an industrial indoor setting (greenhouses).

3.5 Residues and consumer exposure (Part B, Section 7)

Overall conclusion

The data available are considered sufficient for risk assessment. As ethylene is included in Annex IV of the EU Reg. 396/2005, no MRL was deemed necessary (note that ethylene is naturally produced by fruit, vegetable and ornamental crops).

The chronic and short-term intakes of ethylene residues are unlikely to present a public health concern.

As far as consumer health protection is concerned, France as izRMS agrees with the extension of authorisation to the intended uses.

According to the available data, no specific mitigation measures should apply.

EFSA (2012)¹⁰ underlined in its Opinion that a consumer risk assessment could not be conducted, since experimental data are required which would substantiate that residue levels of ethylene and its probable major metabolites in treated crops are less than or similar to background levels measured in untreated crops. The RMS of the active substance should address this question about residues underlined by EFSA at EU level. Afterwards, it would be valuable to inform EU Member States of possible impacts on national authorisations.

Data gaps: none.

⁹ Study 1: Essais de maturation des tomates à l'éthylène en fin de culture

Study 2: Effect of dosage and period of use of ethylene on quality and production of tomato crops at the end of the growing season

¹⁰ Opinion provided in the context of approval under Regulation (EC) No 540/2011 implementing Regulation (EU) No 1107/2009

Table 3.5-1: Information on AZETHYL PHYTO (Ethylene Gas) (KCA 6.8)

Crop	PHI for AZETHYL PHYTO (Ethylene Gas) requested by applicant	PHI/withholding period* sufficiently supported for ethylene	PHI for AZETHYL PHYTO (Ethylene Gas) proposed by zRMS	zRMS Comments (if different PHI proposed)
Tomato	NR	NR	NR	-

NR: not relevant

* Purpose of withholding period to be specified

3.6 Environmental fate and behaviour (Part B, Section 8)

The fate and behaviour in the environment have been evaluated according to the requirements of Regulation (EC) No 1107/2009. Appropriate endpoints from the EU conclusions were used to calculate predicted environmental concentration (PEC) values for the active substance and its metabolites for the intended use patterns. In cases where deviations from the EU agreed endpoints were considered appropriate (for example when additional studies are provided), such deviations were highlighted and justified accordingly.

Considering the intended use for the preparation AZETHYL PHYTO (Ethylene Gas), exposure of environmental compartments to the active substance is considered negligible. Consequently, no exposure calculation for the environment is deemed necessary.

3.7 Ecotoxicology (Part B, Section 9)

The ecotoxicological risk assessment of the formulation was performed according to the requirements of Regulation (EC) No 1107/2009. Appropriate endpoints from the EU conclusions for the active substance and its metabolites were used for the intended use patterns. In cases where deviations from the EU agreed endpoints were considered appropriate (for example when additional studies are provided), such deviations were highlighted and justified accordingly.

Based on guidance documents and the applicant's submission, the risks for birds, aquatic organisms, mammals, bees and other non-target arthropods, earthworms, other soil macro- and micro-organisms and terrestrial plants are considered acceptable for the intended uses for permanent greenhouses only.

3.8 Relevance of metabolites (Part B, Section 10)

Not relevant.

4 Conclusion of the national comparative assessment (Art. 50 of Regulation (EC) No 1107/2009)

The active substance ethylene is not approved as a candidate for substitution, therefore a comparative assessment is not foreseen.

5 Further information to permit a decision to be made or to support a review of the conditions and restrictions associated with the authorisation

When the conclusions of the assessment is “Not acceptable”, please refer to relevant summary under point 3 “Background of authorisation decision and risk management”.

5.1.1 Post-authorisation monitoring

None.

5.1.2 Post-authorisation data requirements

None.





Informations générales sur le produit	
Nom du produit	AZETHYL PHYTO
Type de produit	Produit de référence
Titulaire	AIR LIQUIDE FRANCE INDUSTRIE 6 rue Cognac-Jay 75007 PARIS France
Formulation	Gaz comprimé (GA)
Contenant	39,05 g/kg - éthylène
Numéro d'intrant	2150001
Numéro d'AMM	2150003
Fonction	Régulateur de croissance
Gamme d'usage	Professionnel

L'échéance de validité de la présente décision correspond à celle de l'autorisation du produit.

La présente décision peut être retirée ou modifiée si des éléments le justifient.

A Maisons-Alfort, le

07 AVR. 2021

Caroline SEMAILLE
Directrice générale déléguée
en charge du pôle produits réglementés
Agence nationale de sécurité sanitaire de
l'alimentation, de l'environnement et du travail (ANSES)



ANNEXE I : Modalités d'autorisation du produit

Liste des nouveaux usages autorisés

En l'absence de restriction, les usages sont autorisés sur l'ensemble des cultures de la portée de l'usage.

Usages	Dose maximale d'emploi	Nombre maximum d'applications	Stade d'application BBCH	Délai avant récolte (jours)	Zone Non Traitée aquatique (mètres)	Zone Non Traitée arthropodes non cibles (mètres)	Zone Non Traitée plantes non cibles (mètres)	Mention abeilles
16953812 Tomate*Trt Part.Aer.* Act. Qual. Fruits	256 mL/m ³	14/an	entre les stades BBCH 81 et BBCH 89	Non nécessaire	-	-	-	-
	Uniquement sur tomate. Uniquement sous serre permanente. Intervalle minimum entre les applications : 1 jour. Durée maximale de traitement : 2 semaines. 14 applications maximum par cycle cultural.							
	25,6 mL/m ³	42/an	entre les stades BBCH 81 et BBCH 89	Non nécessaire	-	-	-	-
Uniquement sur tomate. Uniquement sous serre permanente. Intervalle minimum entre les applications : 1 jour. Durée maximale de traitement : 6 semaines. 42 applications maximum par cycle cultural.								



Conditions d'emploi du produit

Protection de l'opérateur et du travailleur

Les équipements de protection individuelle ci-après sont applicables à tous les usages du produit.

Pour l'opérateur, porter

- **pendant le chargement / rechargement des bouteilles contenant le produit**
 - Chaussures de sécurité certifiées EN ISO 20345 ;
 - Gants de manutention certifiés EN 388 (dangers mécaniques) ;
 - EPI vestimentaires conformes à la norme NF EN ISO 27065/A1.
- **pendant le traitement (en cas d'accident ou de dysfonctionnement)**
 - Appareil de protection respiratoire autonome certifié NF EN137.

Pour le travailleur, porter

- Avant ventilation permettant un renouvellement complet du volume d'air de l'abri fermé, pour des tâches d'inspection, de travail de maintenance ou de déstockage des denrées : porter un appareil de protection respiratoire autonome certifié NF EN137.

Les équipements de protection individuelle ci-dessus sont applicables à tous les usages du produit.

Délai de rentrée en application de l'arrêté du 4 mai 2017

- Après ventilation permettant un renouvellement complet du volume d'air de l'abri fermé.

Protection de l'environnement (milieux, faune et flore)

Protection de l'eau

- SP 1 : Ne pas polluer l'eau avec le produit ou son emballage. Ne pas nettoyer le matériel d'application près des eaux de surface. Éviter la contamination *via* les systèmes d'évacuation des eaux à partir des cours de ferme ou des routes.

Les autres modalités d'autorisation du produit restent inchangées.

Appendix 2 Copy of the product label

The draft product label as proposed by the applicant is reported below. The draft label may be corrected with consideration of any new element. The label shall reflect the detailed conditions stipulated in the Decision.

AZETHYL® PHYTO	
Régulateur de la croissance des plantes	
Composition: éthylène, 3.905% p/p, sous forme de gaz comprimé (GA)	
AMM 2150003	
<u>Détenteur de l'homologation et fabricant</u>	
AIR LIQUIDE FRANCE INDUSTRIE	
8, rue Cognacq-Jay	
75007 Paris Cedex 07	
France	
Téléphone: +33 1 58 07 88 02	
AVANT TOUTE UTILISATION, BIEN LIRE L'ÉTIQUETTE. RESPECTEZ LES INSTRUCTIONS D'UTILISATION AFIN D'ÉVITER LES RISQUES POUR LA SANTÉ HUMAINE ET L'ENVIRONNEMENT. PRODUIT POUR LES PROFESSIONNELS.	
Contenu: _____	
N° de lot et date de fabrication: voir emballage	
	
Attention H280 Contient un gaz sous pression, peut exploser sous l'effet de la chaleur. P403 Stocker dans un endroit bien ventilé.	
Autres Dangers: Asphyxiant à forte concentration	
RECOMMANDATIONS EN CAS D'INTOXICATION OU D'ACCIDENT:	
<u>Description des premiers secours:</u>	
<ul style="list-style-type: none"> - Inhalation: Déplacer la victime dans une zone non contaminée, en s'équipant d'un appareil respiratoire autonome individuel (ARI). Maintenir la victime au chaud et au repos. Appeler un médecin. Pratiquer la réanimation cardio-pulmonaire si la victime cesse de respirer, ne respire plus. - Transporter d'urgence en milieu hospitalier et, si possible, porter l'étiquette ou l'emballage. - Contact avec la peau: Pas d'effets néfastes attendus avec ce produit. - Contact avec les yeux: Pas d'effets néfastes attendus avec ce produit. - Ingestion: L'ingestion n'est pas considérée comme un mode d'exposition possible. 	
<u>Principaux symptômes et effets aigus et différés:</u>	
<ul style="list-style-type: none"> - Peut causer l'asphyxie à concentration élevée. Les symptômes peuvent être une perte de connaissance ou de motricité. La victime peut ne pas être consciente de l'asphyxie. 	
<u>Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires:</u>	
<ul style="list-style-type: none"> - Aucun(e). 	
Numéro d'appel d'urgence: ORFILA: +33 1 45 42 59 59	
NE PAS POLLUER L'EAU AVEC LE PRODUIT OU SON EMBALLAGE. (Ne pas nettoyer le matériel d'application près des eaux de Surface / Éviter la contamination via les systèmes d'évacuation des eaux à partir des cours de ferme ou des routes).	
Mesures de sécurité pendant la manipulation	
Pour protéger l'opérateur, porter :	
Pendant la manipulation des emballages contenant le produit :	
<ul style="list-style-type: none"> - des chaussures de sécurité ; - des gants de manutention ; - un vêtement de travail 	
Pendant le traitement (en cas d'accident ou de dysfonctionnement) :	
<ul style="list-style-type: none"> - un appareil de protection respiratoire autonome certifié NF EN137 	
Pour protéger les travailleurs qui seront amenés à pénétrer dans une chambre de mûrissement/déverdissement pour des tâches d'inspection, de travail de maintenance ou de déstockage des denrées, porter un appareil de protection respiratoire autonome certifié NF EN137.	
Élimination des emballages	
L'emballage vide, après son utilisation, doit être retourné à AIR LIQUIDE FRANCE INDUSTRIE. Contacter AIR LIQUIDE FRANCE INDUSTRIE pour la reprise des emballages. Fermer soigneusement le robinet du récipient après chaque utilisation et lorsqu'il est vide, même s'il est encore raccordé à l'équipement. Dès que le récipient est déconnecté de l'installation, remettre en place le chapeau de protection du robinet. Interdire les remontées de produits dans le récipient. Ne pas enlever ou détériorer les étiquettes mises par le fournisseur pour identifier le contenu de la bouteille. Il est interdit de réparer ou de modifier les emballages de gaz ou leur marquage, de les remplir ou d'en transvaser le contenu, de démonter les accessoires (par exemple: chapeau, robinet, rondelle).	
AZETHYL® PHYTO est un régulateur de la croissance des plantes à base d'éthylène, utilisé comme accélérateur du mûrissement naturel et du déverdissement des bananes, et agrumes en post-récolte et de la maturation des tomates en serre.	

Ethylene Gas / AZETHYL PHYTO
Part A - National Assessment
izRMS (FR) version

Mode d'emploi. Dosage.

Usage autorisé	Effet	Dose d'emploi	Nombre maximum de traitement
Bananes	Mûrissement	15.4-25.6 l/m ³ soit 0.6 à 1 L/m ³ d'éthylène pendant 48 h (durée maximale de 2 traitements de 24 h maximum) (800-1000 ppm éthylène)	1 application (de 12 à 24 h) à 2 applications (de 24 h maximum chacune) par lot stocké selon le stade de maturité des bananes
Agrumes (*)	Déverdissement	0.025-0.25 l/m ³ (1-10 ppm éthylène)	1 application, la durée de traitement dépend de la dose de traitement et de l'état de coloration des fruits, directement après la récolte et avant le stockage (typiquement de 24 à 72 heures).
Tomates	Maturation en serre	a) 5.12-25.6 ppm par nuit (0.2-1 ppm éthylène par nuit) b) 256 ppm par nuit (10 ppm éthylène par nuit)	a) 1 application par nuit pendant maximum 6 semaines b) 1 application par nuit pendant maximum 2 semaines

(*) Oranges, Mandarines, Citrons, Citron vert et autres variétés de citron

L'application d'AZETHYL® PHYTO dans la chambre de mûrissement/déverdissement et en serre se fait par un système automatique, la teneur d'éthylène introduite et présente dans la chambre de mûrissement et dans la serre devra être surveillée pour s'assurer qu'elle demeure à des niveaux appropriés. Le produit ne peut être appliqué que dans des chambres de mûrissement/déverdissement et serres hermétiquement fermées, avec système d'injection, contrôle, ventilation, ouverture et fermeture des portes. Pendant l'injection et le temps d'application, la porte d'accès à la chambre de mûrissement ou à la serre devra rester fermée. Préalablement à toute pénétration dans l'enceinte traitée, après 24 heures, il faut assurer une ventilation adéquate permettant un renouvellement complet de l'air. En cas de ventilation insuffisante, le personnel doit porter un équipement de protection respiratoire approprié (NF EN137), par mesure de précaution.

Les applications continues pendant le traitement devront être ajustées aux conditions d'étanchéité de la chambre et à l'absorption du produit par les fruits.

AVERTISSEMENT:

Les recommandations et les renseignements fournis sont le résultat de tests larges et rigoureux. Toutefois, pendant l'utilisation, peuvent apparaître de nombreux facteurs hors de notre contrôle (préparation des mélanges, application, météo, etc.). AIR LIQUIDE FRANCE INDUSTRIE garantit la composition, la formulation et le contenu. L'utilisateur est responsable des dommages causés (manque d'efficacité, toxicité en général, résidus, etc.) pour ne pas avoir suivi les recommandations de l'étiquette.

CONSULTER LE SERVICE TECHNIQUE D'AIR LIQUIDE FRANCE INDUSTRIE POUR ADAPTER LES QUANTITÉS D'AZETHYL ET LES DIFFÉRENTS FACTEURS DE CONTRÔLE EN FONCTION DE L'INSTALLATION DE MÛRISSEMENT ET DU NOMBRE DE LOTS DE FRUITS À TRAITER